1. Incident Name Cotton Patch Bayou-07	2. Operational Period to be covered by IAP (Date/Time) From: 1600 9/12/07 To: 0800 9/14/07	CG IAP COVER SHEET

3. Approved by Incident Commander(s):

ORG	NAME	
USCG	USCG-Captain Diehl /MSTC Tillmon	
EPA	FOSC - Chris Kuhl	EPA FOSC
TCEQ	Walter Rodriguez	SOSC
RP	Robert Stewart	
SMT	Kelly Wilson	

INCIDENT ACTION PLAN

The items checked below are included in this Incident Action Plan:

- ☒ ICS 202-CG (Response Objectives)
- ☒ ICS 203-CG (Organization List) – OR – ICS 207-CG (Organization Chart)
- ☒ ICS 204-CGs (Assignment Lists)
  One Copy each of any ICS 204-CG attachments.
- ☒ ICS 205-CG (Communications Plan)
- ☐ ICS 206-CG (Medical Plan)
- ☒ ICS 208-CG (Site Safety Plan) or Note SSP Location
- ☒ Map/Chart
- ☒ Weather forecast / Tides/Currents

Other Attachments

☒ Process Water Treatment Plan	☒ Facility Hurricane Evacuation Plan (Available)
☒ Resources at Risk	☐
☒ Storage Plan	☐
☒ Disaster Scenarios and Response	☐
☒ Press Release	☐
☒ MSDS	☒
☒ Emergency Situation Memo	☐
☒ Initial Fertilizer Formulation Plan	☐
☒ Cotton Patch Bayou Release Updates	☐
☒ Water Levels	

4. Prepared by:	Date/Time
Tim Langford	9/12/07 1315

1. Incident Name Cotton Patch Bayou Release '07	2. Operational Period (Date/Time) From: 1600 9-12-07 To: 0800 9-14-07	INCIDENT OBJECTIVES ICS 202-CG

3. Objective(s)

1. Health and Safety

2. Water Management - Prevent Catastophic Release

3. Notify/Update Stakeholders

4. Mitigate Environmental Damage

5. Assess/Monitor Environmental Damage

6. Continue to ID Environmentally Sound Disposal Options for Transportation, Storage and Disposal (TSD)

7. Set up claims process

4. Operational Period Command Emphasis (Safety Message, Priorities, Key Decisions/Directions)

ATV type vehicle is now stationed by "Rally Point 3" as indicated on the Site Safety Plan map for staff mobilization to the safety rally point should it become necessary to move personnel to higher ground.

Wildlife - If impacted wildlife is observed do not attempt to retrieve etc. Report sightings to PSC-Tim Langford @ 281-330-9930.

Material Management Plan:

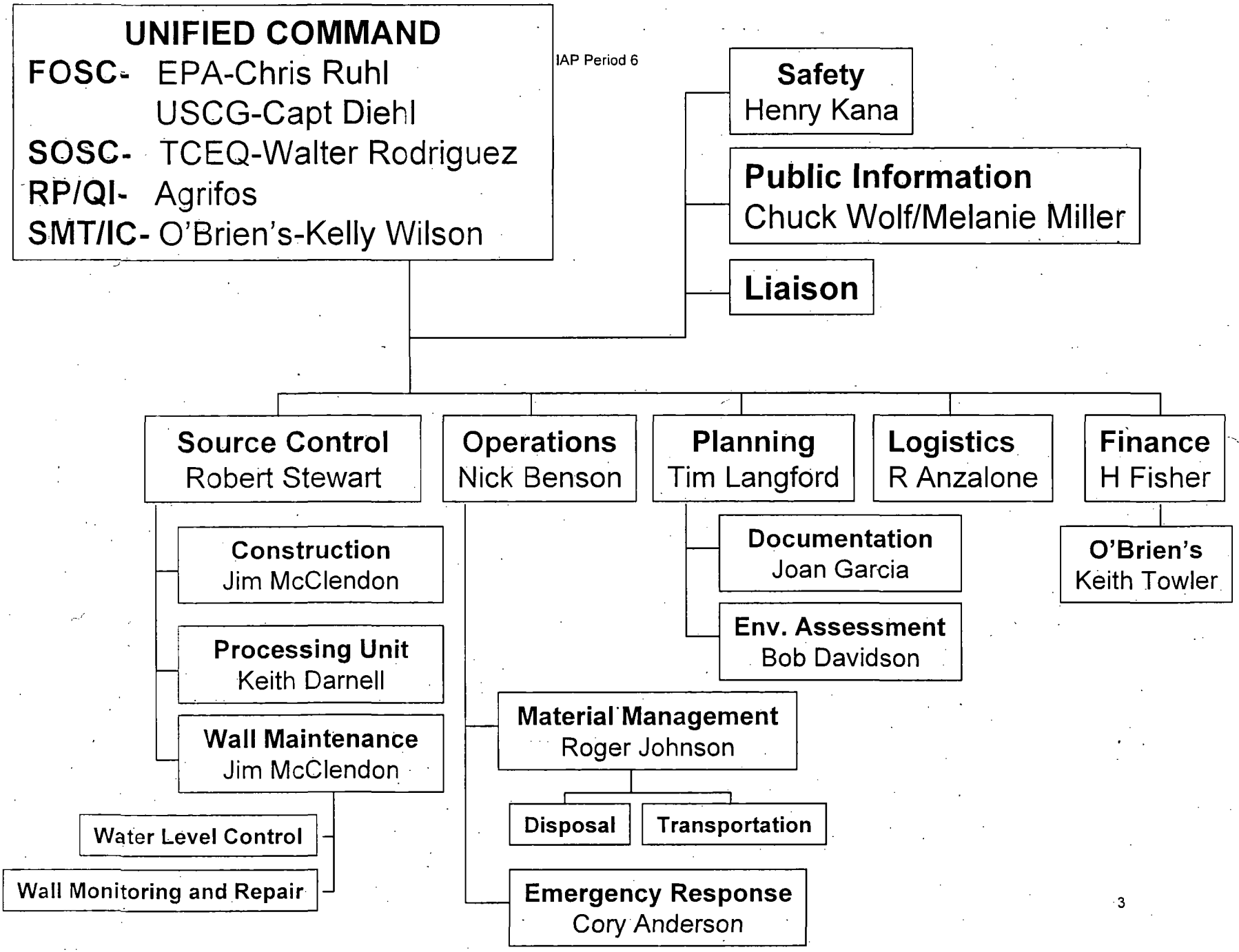
Continue to identify, evaluate & procure offsite disposal options for raw or treated gypsum water.

Continue to identify, evaluate & procure transportation for raw or treated gypsum water.

Continue to develop a Reuse Plan.

Approved Site Safety Plan Located at: Posted in UC Room and In field with workers.

5. Prepared by: (Planning Section Chief)	Date/Time
Tim Langford	9-12-07 / 1315


UNIFIED COMMAND
FOSC- EPA-Chris Ruhl
USCG-Capt Diehl
SOSC- TCEQ-Walter Rodriguez
RP/QI- Agrifos
SMT/IC- O'Brien's-Kelly Wilson
IAP Period 6
Safety
Henry Kana
Public Information
Chuck Wolf/Melanie Miller
Liaison
Source Control
Robert Stewart
Operations
Nick Benson
Planning
Tim Langford
Logistics
R Anzalone
Finance
H Fisher
Construction
Jim McClendon
Processing Unit
Keith Darnell
Wall Maintenance
Jim McClendon
Water Level Control
Wall Monitoring and Repair
Material Management
Roger Johnson
Disposal
Transportation
Emergency Response
Cory Anderson
Documentation
Joan Garcia
Env. Assessment
Bob Davidson
O'Brien's
Keith Towler

1. Incident Name	2. Operational Period (Date/Time)	Assignment List ICS 204-CG
Cotton Patch Bayou Release 07	From: 1600 9-12-07 To: 0800 9-14-07	

3. Branch	4. Division/Group/Staging
Construction	Construction Group

5. Operations Personnel

	Name	Affiliation	Contact # (s)
Source Control Section Chief:	Robert Stewart	Agrifos	713-248-5189
Branch Director:			
Division/Group Supervisor/STAM:	Jim McClendon	Agrifos	713-823-3193

6. Resources Assigned "X" indicates 204a attachment with additional instructions

Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# of Persons	Reporting Info/Notes/Remarks	
Back Hoe with Jackhammer	3JRyan				☐
Silt Dams	3JRyan				☐
Rebar	3JRyan				☐
Personnel	Joe Reyes	713-875-4597	7-9		☐
Concrete Forms	3JRyan				☐
Dirt	3JRyan				☐
Concrete to pour	3JRyan				☐
					☐
					☐
					☐
					☐

7. Work Assignments

1. Crews must deconstruct failed wall section. – Operation is complete
2. Crews must clear concrete debris
   Update 9-11-07 - ongoing, should finish late tonight or early Wednesday morning, 9-12-07. Awaiting confirmation.
3. Place silt dams into proper location – ongoing process
4. Move pre-fabricated concrete forms into place
   Update 9-11-07 – PTRA has granted us access to their rail area to set up crane.
5. Place Rebar in to proper location
   Update 9-11-07 – rebar has been received on work site. Form preparations will begin Wednesday morning, 9-12-07.
6. Pour Concrete

8. Special Instructions

Maintain safety and welfare of response personnel and employees
Minimize adverse impacts on environment
Report any injured or deceased wildlife to Agrifoss supervisor immediately

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function		Radio: Freq./System/Channel	Phone	Cell/Pager	
Robert Stewart	SCSC	Agrifos Channel 1	713-248-5189		
Jim McClendon	Agrifos		713-823-3193		
Joe Reyes	Pres. Of 3JRYAN		713-875-4597		

Emergency Communications

Medical _____ Evacuation _____ Other _____

10. Prepared by	Date/Time	11. Reviewed by (PSC)	Date/Time	12. Reviewed by (OSC)	Date/Time
Tim Langford	09-12-07 1350	Tim Langford	9-12-07 1350		

1. Incident Name	2. Operational Period (Date/Time)	ASSIGNMENT LIST ATTACHMENT
Cotton Patch Bayou Release '07	From: 1600 09-12-07 To: 0800 09-14-07	ICS 204a-CG

3. Branch	4. Division/Group
Process Unit	Process Unit

5. Strike Team/Task Force/Resource (Identifier)	6. Leader	7. Assignment Location
	Keith Darnell	Agrifos Fertilizer facility

8. Work Assignment Special Instructions, Special Equipment/Supplies Needed for Assignment, Special Environmental Considerations, Special Site Specific Safety Considerations

Develop a Material Reuse Plan.

-Plan will include how material (2 pH fertilizer feedstock) will be processed, and product produced.

-Include onsite storage capacity, transportation procedures, and possible destination points.

Action to begin tomorrow:

-Finish processing remaining run off water - complete

-Begin pipeline construction to dock - ongoing.

-Convert waste water plant to process 2 pH liquid fertilizer feedstock into a fertilizer product (sytem will be designed to process 1,000,000 gallons of feedstock daily) - ongoing.

-Complete license application for emergency approval - ongoing.

Future Plans:

-Identify additional storage locations - ongoing.

-Develop a plan for onsite application - ongoing.

Approved Site Safety Plan Located at: ICP

9. Other Attachments (as needed)

☐ Map/Chart ☐ Weather Forecast/Tides/Currents ☐ _____

☐ _____ ☐ _____ ☐ _____

10. Prepared by:	Date/Time	11. Reviewed by (PSC):	Date/Time	12. Reviewed by (OSC):	Date/Time
Tim Langford	09-12-07 1340	Tim Langford	09-12-07 1340		

1. Incident Name	2. Operational Period (Date/Time)	Assignment List ICS 204-CG
Cotton Patch Bayou Release 07	From: 1600 9-12-07 To: 0800 9-14-07	

3. Branch	4. Division/Group/Staging
Wall Maintenance	Water Level Control

5. Operations Personnel

	Name	Affiliation	Contact # (s)
Source Control Section Chief:	Robert Stewart	Agrifos	713-248-5189
Branch Director:	Jim McClendon	Agrifos	713-623-3193
Division/Group Supervisor/STAM:	Cory Anderson	USES	281-642-9117

6. Resources Assigned "X" indicates 204a attachment with additional instructions

Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# of	Reporting Info/Notes/Remarks	↓
Godwin 6" Pump	Cory Anderson	281-642-9117	1		☐
Godwin 4" Pump	Cory Anderson	281-642-9117	2		☐
Rain For Rent 4" Pump	Cory Anderson	281-642-9117	1		☐
All Hose Discharge pipe	Cory Anderson	281-642-9117	3000'		☐
Agrifos 10" Pump	Jim McClendon	713-823-3193	3		☐
Agrifos 6" Pump	Jim McClendon	713-823-3193	4		☐
Agrisfos 6"x3 Pump	Jim McClendon	713-823-3193	4		☐
Agrisfos 6"x8 Pump	Jim McClendon	713-823-3193	1	Last Resort (Emergency H20 Pump)	☐
					☐
					☐

7. Work Assignments

1. Place Pumps in proper location.
2. Install suction/discharge lines.
3. Inspect all lines and pump connections prior to initiating pumping operations.
4. Commence controlled pumping under direction of Source Control Section Chief.

8. Special Instructions

1. Be aware of current weather conditions.
2. Refer to Site Safety Plan
3. Follow direction of on-site supervisor
4. Notify PSC-Tim Langford when pumping operations begin and end.
5. Log times when each pump is turned on and off.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq./System/Channel	Phone	Cell/Pager	
Robert Stewart		281-467-9808		
Jim McClendon		713-823-3193		

Emergency Communications

Medical Henry Kana 832-647-8357 Evacuation _____ Other 911 – Emergency Services

10. Prepared by	Date/Time	11. Reviewed by (PSC)	Date/Time	12. Reviewed by (OSC)	Date/Time
Tim Langford	9-12-07 1334	Tim Langford	9-12-07 1334		

1. Incident Name	2. Operational Period (Date/Time)	Assignment List ICS 204-CG
Cotton Patch Bayou Release 07	From: 1600 9-12-07 To: 0800 9-14-07	

3. Branch	4. Division/Group/Staging
Wall Maintenance	Wall Monitoring and Repair

5. Operations Personnel

	Name	Affiliation	Contact # (s)
Source Control Section Chief:	Robert Stewart	Agrifos	713-248-5189
Branch Director:			
Division/Group Supervisor/STAM:	Jim McClendon	Agrifos	713-823-3193

6. Resources Assigned "X" indicates 204a attachment with additional instructions

Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# of Persons	Reporting Info/Notes/Remarks	↓
Wall Maintenance Crew	Luke	281-642-6515	3-4		☐
Associated repair tools	Luke	281-642-6515			☐
Geotechnical Consultant	Rodrigo Homes	407-721-4653	1		☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐

7. Work Assignments

1. Locate and identify additional seeps
2. Monitor and report leak rates to Operations Section Chief
   existing and newly discovered seeps
3. Apply mitigation method to seeps
   9-11-07 update: there have five mitigation plates installed and they will be pumped and sealed in short order.
4. Prep and initiate repairs if applicable (see special instructions).
5. Geotechnical consultant will conduct a daily visual survey of all stacks and retaining walls.
6. Geotechnical consultant will submit a written report to the Unified Command on a daily basis and after any significant events that may affect the stability.

8. Special Instructions

1. Once temporary repair is be made, the Site Safety Officer must be notified.
   Upon notification to the Site Safety Officer, he will determine if the area is **SAFE** to work in.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq./System/Channel	Phone	Cell/Pager	
Robert Stewart		281-467-9808		
Jim McClendon		713-823-3193		

Emergency Communications

Medical Henry Kana 832-647-8357 Evacuation _____ Other 911 – Emergency Services

10. Prepared by	Date/Time	11. Reviewed by (PSC)	Date/Time	12. Reviewed by (OSC)	Date/Time
Tim Langford	9-12-07 1331	Tim Langford	9-12-07 1334		

1. Incident Name	2. Operational Period (Date/Time)	ASSIGNMENT LIST ATTACHMENT
Cotton Patch Bayou Release '07	From: 1600 09-12-07 To: 0800 09-14-07	ICS 204a-CG

3. Branch	4. Division/Group
Material Management	Disposal

5. Strike Team/Task Force/Resource (Identifier)	6. Leader	7. Assignment Location
	Roger Johnson	Agrifos Fertilizer facility

8. Work Assignment Special Instructions, Special Equipment/Supplies Needed for Assignment, Special Environmental Considerations, Special Site Specific Safety Considerations

Locate disposal facilities that are able to process gypsum water.

Identify the parameters required for the gypsum water to be accepted by the disposal facilities.

9-10-07 Report from working group:

Gulf Coast Disposal-
Discussion Sunday, September 9, with Gulf Coast Disposal to see if they could take treated water that contained fluorides with a ph from 6-9 at their facility. Acknowledged their facility was a biological treatment plant and that any fluorides would be passed through. The decision of quantity they could take has not yet been made, but ranges run from 500,000-1mm to begin with. Gulf Coast Waste Disposal was adament about permit violations and were going to look at the chemcial makeup that Agrifos gave them to see what permits would be violated, etc.

Shipping parameters were in this order: trucks, barges, and lastly pipelines.

EPA , TCEQ and CG were all present and were all told what permits would be violated.

Discussion Monday, September 10, via email, Gulf Coast Waste sent new and better acceptance parameters and changed the method of delivery to: pipelines, barges and then trucks, in that order.

Agrifos took parameters and are currently analyzing these to meet specifications. Agrifos met with Air Products to discuss pipeline options because they have two pipelines that go directly to Gulf Coast. One pipeline is leased to Celenase, and Air Products said the lines were pretty well utilized, but take a look at it. This afternoon, we met with Kinder Morgan, since they also distirbute their waste to Gulf Coast, as a possible connection point for our treated processed water. Kinder Morgan was receptive to giving us help but wanted to verify their needs and uses before a definate commitment was given. Agrifos is trying to set up conversation with Pasadena Refining to complete the pipeline connections.

Texas Molecular Services-
Spoke to Debra Payne 9-10-07. Deer Park facility can accept 0-14 pH waste. Need a sample of material and description of material profile to determine how much material can be taken and and if it will have to be processed prior to receiving. Samples taken. Working on profile. Projected submittal, 9-11-07.

Clean Harbors-

9-11-07 Report from working group:
Meting with Pasadena Refining at 1500 today to discuss possible use of waste disposal line. Our several conversations with Kinder Morgan regarding useage of the pipeline as a follow up of the meeting yesterday.

ACTION: Develop a profile document for any material that will be disposed of.

See Additional updates in Cotton Patch Bayou Release Update form.

Approved Site Safety Plan Located at: ICP

9. Other Attachments (as needed)

☐ Map/Chart ☐ Weather Forecast/Tides/Currents ☐ _____

☐ _____ ☐ _____ ☐ _____

10. Prepared by:	Date/Time	11. Reviewed by (PSC):	Date/Time	12. Reviewed by (OSC):	Date/Time
Tim Langford	09-12-07 1345	Tim Langford	09-12-07 1345		

1. Incident Name	2. Operational Period (Date/Time)	ASSIGNMENT LIST ATTACHMENT
Cotton Patch Bayou Release '07	From: 1600 09-12-07 To: 0800 09-14-07	ICS 204a-CG

3. Branch	4. Division/Group
Material Management	Transportation

5. Strike Team/Task Force/Resource (Identifier)	6. Leader	7. Assignment Location
	Steve Pierce	Agrifos Fertilizer facility

8. Work Assignment Special Instructions, Special Equipment/Supplies Needed for Assignment, Special Environmental Considerations, Special Site Specific Safety Considerations

Identify, evaluate and procure transportation for gypsum water to a disposal facility.

-Determine best available transportation method for the given disposal location.

-Consider tank barges, tanker, and/or pipeline.

-Determine material specifications required by any vessels used.

Report from working group:

General Marine Leasing contacted to source available barges.

Lake Mary Marine contacted. Located 3 local barges (30,000 bbls total), and 2 in New Orleans (20,000 bbls total). pH must be 4 or higher. Checking MSDS to insure no other conflicts exist.

Seacor and Van Brothers contacted. Waiting for response.

-Continue chartering barges to transport product to destinations (3,000,000 gallon receiver located in Houston, additional 1,000,000 located in New Orleans).

Approved Site Safety Plan Located at: ICP

9. Other Attachments (as needed)

☐ Map/Chart ☐ Weather Forecast/Tides/Currents ☐ _____

☐ _____ ☐ _____ ☐ _____

10. Prepared by:	Date/Time	11. Reviewed by (PSC):	Date/Time	12. Reviewed by (OSC):	Date/Time
Tim Langford	09-12-07 1342	Tim Langford	09-12-07 1342		

1. Incident Name	2. Operational Period (Date/Time)	Assignment List ICS 204-CG
Cotton Patch Bayou Release 07	From: 1600 9-12-07 To: 0800 09-14-07	

3. Branch	4. Division/Group/Staging
Emergency Response	Emergency Response

5. Operations Personnel

	Name	Affiliation	Contact # (s)
Operations Section Chief:	Nick Benson	OOPS	281-467-9808
Branch Director:			
Division/Group Supervisor/STAM:	Cory Anderson	USES	281-642-9117

6. Resources Assigned "X" indicates 204a attachment with additional instructions

Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# of Persons	Reporting Info/Notes/Remarks	
USES Personnel	Cory Anderson	281-642-9117	5		☐
Limestone	Bubba Bryan	713-703-9326	TBD	Based on calculation of area	☐
Rubber Tire Loader	Bubba Bryan	713-703-9326	TBD		☐
Track Hoe	Bubba Bryan	713-703-9326	TBD		☐
2 Light Plants	TBD	TBD			☐
					☐
					☐
					☐
					☐
					☐

7. Work Assignments

1. Identify staging - complete
2. Delivery of Equipment - ongoing
3. Begin placement of neutralization bed - ongoing

8. Special Instructions

1. Refer to Site Safety Plan
2. Follow direction of on-site supervisor

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function		Radio: Freq./System/Channel	Phone	Cell/Pager	
Nick Benson	OSC				
Cory Anderson	USES				

Emergency Communications

Medical _____ Evacuation _____ Other _____

10. Prepared by	Date/Time	11. Reviewed by (PSC)	Date/Time	12. Reviewed by (OSC)	Date/Time
Tim Langford	09-12-07 1320	Tim Langford	09-12-07 1320		

1. Incident Name	2. Operational Period (Date/Time)	Assignment List ICS 204-CG
Cotton Patch Bayou Release 07	From: 1600 9-12-07 To: 0800 09-14-07	

3. Branch	4. Division/Group/Staging
Environmental Assessment	Environmental Assessment Group

5. Operations Personnel

	Name	Affiliation	Contact # (s)
Planning Section Chief:	Tim Langford	OOPS	281-330-9930
Branch Director:			
Division/Group Supervisor/STAM:	Dan Hahn	NOAA	727-421-0724

6. Resources Assigned "X" indicates 204a attachment with additional instructions

Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# of Persons	Reporting Info/Notes/Remarks	
EPA Personnel	Chantelle Billiot	832-347-3650	2		☐
USCG Personnel	MST Mijarez	915-329-7092	TBD		☐
Agrifos Personnel	Roger Johnson	281-733-7850	TBD		☐
TCEQ Personnel	Walter Rodriguez	713-540-9496	TBD	Strike team coming to site.	☐
Benchmark Environment Group	Bob Davidson	281-934-3403 / 703-7676	1		☐
US Fish and Wildlife			TBD		☐
NOAA	Charley Henry	206-849-9928			☐
TPW	Winston Denton	713-248-4883			☐
					☐
					☐

7. Work Assignments

1. Continue environmental site assessment
2. Develop a sampling and monitoring plan
3. Set up pH monitoring downstream – Benchmark – Ongoing
4. Implement sampling and monitoring plan

8. Special Instructions

1. Please refer and follow site safety plan
2. Utilize "Buddy System" when walking within site area
3. Be aware of environmental conditions (Heat, Rain, Wildlife, etc…)
4. Report any injured or deceased wildlife to Agrifos supervisor immediately

Update 9-11-07 – talked with Walter, agreed not to do the walk Wednesday, 09-12-07, or until we discharge again, cut back monitoring from three to one time a day.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq./System/Channel	Phone	Cell/Pager	
Henry Kana Site Safety Officer	Agrifos Channel 1	832-647-8357		

Emergency Communications

Medical _____ Evacuation _____ Other _____

10. Prepared by	Date/Time	11. Reviewed by (PSC)	Date/Time	12. Reviewed by (OSC)	Date/Time
Tim Langford	09-12-07 1350	Tim Langford	09-12-07 1350		

1. Incident Name Cotton Patch Bayou Release '07	2. Operational Period (Date / Time) From: 1600 9-12-07 To: 0800 9-14-07	COMMUNICATIONS LIST ICS 205A-CG

3. Basic Local Communications Information

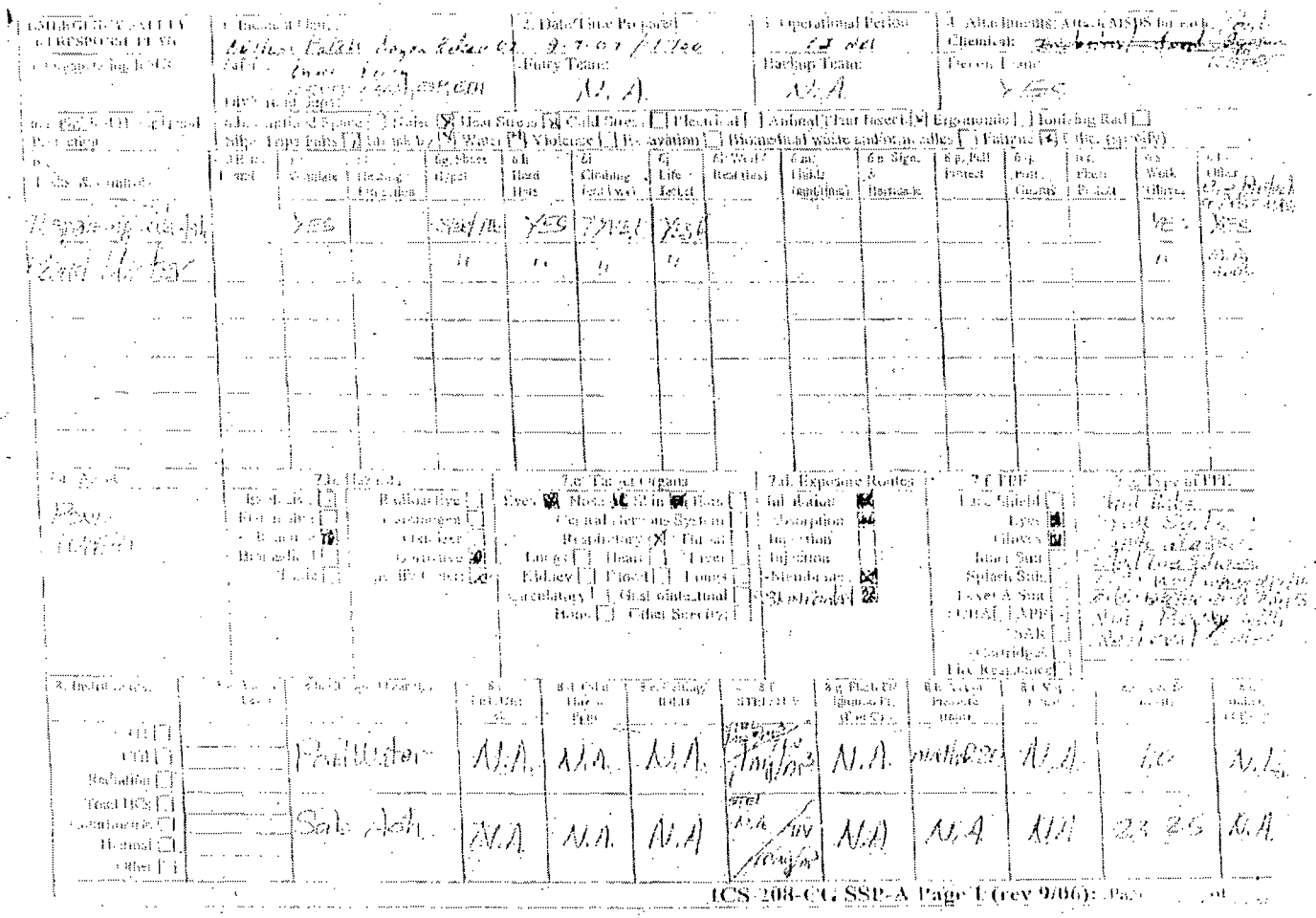
Assignment	Name	Method(s) of contact (radio frequency, phone, pager, cell #(s), etc.)
USCG	David Orozco	915-383-6837
USCG	Gilbert Mijarez	915-329-7092
Agirfos	Robert Stewart	713-248-5189
	Dick Nettles	281-382-4256
Agrifos	Praveen Jain	281-543-8188
	Margaret Smith	423-653-0358
Agrifos (Pipe / Const.)	Jim McClendon	713-823-3193
Agrifos (Storage / Env)	Roger Johnson	281-733-7850
Agrifos	Rose Broome	281-923-2070
	Tom Edwards	281-610-3403
	Casey Smith	601-807-7665
O'Brien's (UC)	Kelly Wilson	713-503-6389
USCG (Tech Spec))	Virginia Kammer	251-776-2793
NOAA (SSC)	Charlie Henry	206-849-9928
	Mike Davis	713-409-2517
EPA (UC)	Chris Ruhl	214-789-9587
USCG	Matt Tilimon	832-256-3261
USCG (Tech Spec)	Chet Davis	251-776-2792
O'Brien's (OPS)	Nick Benson	281-467-9808
K&T Safety (SSO)	Henry Kana	832-647-8357
Agrifos	Steve Pierce	713-705-7043
Media	Chuck Wolf	713-304-2912
Agrifos (Treatment)	Keith Darnell	281-923-2064
O'Brien's (Plan)	Tim Langford	281-330-9930
HCPHES	Al Rushanan	713-740-8757
Agrifos (PIO)	Melanie Miller	713-594-9165
TCEQ (UC)	Walter Rodriquez	
Media	Bob Gresser	713-562-3272
USCG (Media)	LT Mark Molavi	832-256-2568
Benchmark (Env)	Bob Davidson	281-834-3403 / 703-7676
EPA (START)	Derrick Cobb	832-347-4180
EPA (START)	Chantelle Billiot	832-347-3650
ExxonMobil	Buddy Hand	281-654-8457
TCEQ (SOSC)	Matt Allen	713-540-1935

USCG (FOSC)	Capt. Diehl	713-671-5100
USES	Cory Anderson	281-642-9117
USCG (Public Affairs)	CWO Wine	832-293-1293
USCG (PA)	PO Romero	832-250-6667
National Weather Serv.	Kent Prochazka	281-337-5192 x234
O'Brien's	Randy Anzalone	713-569-7237
USCG	Joe Leonard	409-682-1266
Agrifos	Tim Cotton	646-286-1312 (m)
Agrifos	Margaret Smith	423-653-0358 (m)

4. Prepared by: (Communications Unit) Tim Langford

Date / Time 9-11-07 1355

COMMUNICATIONS LIST ICS 205a-CG (Rev. 07/04)



ICS 208-CG SSP-A Page 1 (rev 9/06):

EMERGENCY SAFETY and RESPONSE PLAN (Cont) | 1. Incident Name [illegible] | 2. Date/Time Prepared [illegible] | 3. Operational Period [illegible] | 4. Attachments: Attach MSDS for each Chemical [illegible]

9. [illegible] Suit Wash [ ] PPE Exchange [ ] SCBA/Mask Rinse [ ] [illegible]
[illegible] Drop Off [ ] Outer Glove Removal [ ] Inner Glove Removal [ ]
[illegible] Removal [X] Other [ ] Inner Suit Removal [ ] Work Clothes Removal [ ]
[illegible] SCBA/Mask Removal [ ] Body Shower [ ]

10. Site Map: Include Work Zones, [illegible] Hazard, [illegible] Perimeter, Place of Refuge, Decontamination Line, Evacuation Routes, Assembly Areas, Direction of Travel
[X] Attached [ ] Drawn Below

11. [illegible] Emergencies | 11.b Evacuation Alarm | 11.c Emergency Prevention and Evacuation Procedures [illegible]
Fire [ ] | [illegible] | [illegible] Distance [illegible]
Explosion [ ] | [illegible]
[illegible] [X] | [illegible] [X] [illegible]

12.a [illegible] | 12.b [illegible] | 12.c [illegible] | 12.d [illegible]

13.a [illegible] Personnel Assigned [illegible] | 13.b Procedures | 13.c Equipment

14.a Emergency Medical [illegible] | 14.b Procedures [illegible] | 14.c Equipment [illegible]

15. Prepared by [illegible] | 16. [illegible] Approved [illegible]

ICS-208 CG SSP-A Page 2 (rev 9/06): Page ___ of ___

IAP Period 6

CG ICS SITE SAFETY PLAN (SSP) HAZARD ID/EVAL/CONTROL	1. Incident Name: CPBR 707 Pond Water Release	2. Date/Time Prepared: 09-07-07 1914S	3. Operational Period: 12 hrs.	4. Safety Officer (include method of contact): Henry Kank, CSP, CIH Shaun Perry
5. Supervisor/Leader	6. Location and Size of Site	7. Site Accessibility: Land [X] Water [ ] Air [ ] Comments:	8. Emergency Contacts	9. Attachments: Attach MSDS for each Chemical: POND WATER

10.a. Job Task/Activity	10.b. Hazards*	10.c. Potential Injury & Health Effects	10.d. Exposure Routes	10.e. Controls: Engineering, Administrative, PPE
Handling/Trailer Transfer of Pond Water	2% Phosphoric Acid	Chemical Burns	Inhalation [X] Absorption [X] Ingestion [X] Injection [ ] Membrane [X] SKIN [X]	Hard Hats, Steel Toe Boots, Flotation, Safety Glasses, Tyvek Suits, Gloves, Life vest when working over Water or with 5' of edge. Ring Bouys with retrieval Lines.
Industrial Ground Gypsum	Dust; Inhalation Eye & Skin Contact	Chemical Burns	Inhalation [X] Absorption [ ] Ingestion [X] Injection [ ] Membrane [X] SKIN [X]	SAME
			Inhalation [ ] Absorption [ ] Ingestion [ ] Injection [ ] Membrane [ ]	
			Inhalation [ ] Absorption [ ] Ingestion [ ] Injection [ ] Membrane [ ]	
			Inhalation [ ] Absorption [ ] Ingestion [ ] Injection [ ] Membrane [ ]	

11. Prepared By: Henry Kank	12. Date/Time Briefed: 09-07-07 20:00	*HAZARD LIST: Physical/Safety, Toxic, Explosion/Fire, Oxygen Deficiency, Ionizing Radiation, Biological, Biomedical, Electrical, Heat Stress, Cold Stress, Ergonomic, Noise, Cancer, Dermatitis, Drowning, Fatigue, Vehicle, & Diving	ICS-208-CG SSP-B (rev 9/06): Page ___ of ___

CG ICS SSP - SITE MAP	1. Incident Name [illegible] 07	2. Date/Time Prepared 9-7-07 2000	3. Operational Period 12 hrs	4. Safety Officer (include method of contact) Henry [illegible] [illegible] [illegible]
5. Supervisor/Leader	6. Location and Size of Site	7. Site Accessibility Land [X] Water [ ] Air [ ] Comments:	8. First Emergency Contact	9. Include: - Work Zones - Security Perimeter - Decontamination Line - Locations of Hazards - Places of Refuge - Evacuation Routes

10. Sketch of Site:
[X] Attached [ ] Drawn Here

11. Prepared By: Henry [illegible], SPCM	12. Date/Time Briefed: 09-07-07 2000	HAZARD LIST: Physical Safety, Toxic, Explosion/Fire, Oxygen Deficiency, Ionizing Radiation, Biological, Biomedical, Electrical, Heat Stress, Cold Stress, Ergonomic, Noise, Cancer, Dermatitis, Drowning, Fatigue, Vehicle, & Diving	ICS-208-CG SSP-C (rev 9/06): Page ___ of ___

CG ICS SSP: EMERGENCY RESPONSE PLAN	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
	CPBR -07	09-07-07 2000	12hrs.	HENRY KAND, CSP, CIH Sherry Perry

5. Supervisor Leader	6. Location and Size of Site	7. For Emergencies Contact:	8. Attachments: INCLUDE ICS FORM 206 and EMT Medical Response Procedures

9. Emergency Alarm (sound and location)	10. Backup Alarm (sound and location)	11. Emergency Hand Signals	12. Emergency Personal Protective Equipment Required:
Air Horn - ONE CONTINUOUS BLAST	Radios 4- cell phones	N.A.	SAME AS SSP-B, 10.e

13. Emergency Notification Procedures	14. Places of Refuge (also see site map form 208D)	15. Emergency Decon and Evacuation Steps	16. Site Security Measures
~~Heavy Equipment~~ ~~Teams~~	SEE ATTACHED TO SSP-C	Drench and Flush with Fresh Water	

17. Prepared By:	18. Date/Time Briefed.	HAZARD LIST	ICS 208-CG SSP-D (rev 9/06)
Henry Kand CSP, CIH	09-07-07 2000	**HAZARD LIST:** Physical/Safety, Toxic, Explosion/Fire, Oxygen Deficiency, Ionizing Radiation, Biological, Biomedical, Electrical, Heat Stress, Cold Stress, Ergonomic, Noise, Cancer, Dermatitis, Drowning, Fatigue, Vehicle & Diving	Page ___ of ___

CG ICS SSP: Exposure Monitoring Plan

1. Incident Name:	2. Date/Time Prepared:	3. Operational Period:	4. Safety Officer (Method of Contact):
CPBR - C7	09-07-07 2000	12 hrs.	[illegible]

5. Specific Task/Operation	6. Survey Location	7. Survey Date/Time	8. Monitoring Methodology	9. Direct-Reading Instrument	10. Air Sampling	11. Hazard(s) to Monitor	12. Monitoring Duration	13. Reasons to Monitor	14. Laboratory Support for Analysis
NA			☐ Personal Breathing Zone ☐ Area Air Monitoring ☐ Dermal Exposure Monitoring ☐ Biological Monitoring: ☐ Blood ☐ Urine ☐ Other ☐ Obtain bulk samples ☐ Other:	Model: Manufacturer: Last Mfr Calibration Date:	Sampling/Analysis Method: Collecting Media: ☐ Charcoal Tube ☐ Silica Gel ☐ 37 mm MCE Filter ☐ 37 mm PVC Filter ☐ Other:			☐ Regulatory Compliance ☐ Assess current PPE adequacy ☐ Validate engineering controls ☐ Monitor IDLH Conditions ☐ Other	
			☐ Personal Breathing Zone ☐ Area Air Monitoring ☐ Dermal Exposure Monitoring ☐ Biological Monitoring: ☐ Blood ☐ Urine ☐ Other ☐ Obtain bulk samples ☐ Other:	Model: Manufacturer: Last Mfr Calibration Date:	Sampling/Analysis Method: Collecting Media: ☐ Charcoal Tube ☐ Silica Gel ☐ 37 mm MCE Filter ☐ 37 mm PVC Filter ☐ Other:			☐ Regulatory Compliance ☐ Assess current PPE adequacy ☐ Validate engineering controls ☐ Monitor IDLH Conditions ☐ Other	
			☐ Personal Breathing Zone ☐ Area Air Monitoring ☐ Dermal Exposure Monitoring ☐ Biological Monitoring: ☐ Blood ☐ Urine ☐ Other ☐ Obtain bulk samples ☐ Other:	Model: Manufacturer: Last Mfr Calibration Date:	Sampling/Analysis Method: Collecting Media: ☐ Charcoal Tube ☐ Silica Gel ☐ 37 mm MCE Filter ☐ 37 mm PVC Filter ☐ Other:			☐ Regulatory Compliance ☐ Assess current PPE adequacy ☐ Validate engineering controls ☐ Monitor IDLH Conditions ☐ Other	
			☐ Personal Breathing Zone ☐ Area Air Monitoring ☐ Dermal Exposure Monitoring ☐ Biological Monitoring: ☐ Blood ☐ Urine ☐ Other ☐ Obtain bulk samples ☐ Other:	Model: Manufacturer: Last Mfr Calibration Date:	Sampling/Analysis Method: Collecting Media: ☐ Charcoal Tube ☐ Silica Gel ☐ 37 mm MCE Filter ☐ 37 mm PVC Filter ☐ Other:			☐ Regulatory Compliance ☐ Assess current PPE adequacy ☐ Validate engineering controls ☐ Monitor IDLH Conditions ☐ Other	

15. Prepared By:	16. Date/Time Briefed:	HAZARD LIST:
[illegible]	09-07-07 2000	**Potential Health Effects:** Bruise/Lacerations, Organ Damage, Central Nervous System Effects, Cancer, Reproductive Damage, Low Back Pain, Temporary Hearing Loss, Dermatitis, Respiratory Effects, Bone Breaks, & Eye Burning

18. Safety Officer Review:		
[illegible]	Reporting: Monitoring results shall be logged in the ICS-208-CG SSP-E-F form (Air Monitoring Log) and attached as part of current Site Safety Plan and Incident Action Plan. Significant Exposures shall be immediately addressed to the IC and General Staff for immediate correction.	ICS-208-CG SSP-E (rev 9/06) Page ___ of ___

CG ICS SSP: AIR MONITORING LOG	1. Incident Name: Unified Command	2. Date/Time Prepared: 24-0-07 2030	3. Operational Period: 12 hrs	4. Safety Officer (include method of contact): [illegible]
5. Site Location:	6. Hazards of Concern:	7. Action Levels (include references):		8. Weather: Temperature: Precipitation: Wind: Relative Humidity: Cloud Cover:

9.a. Instrument, ID Number Calibrated? Indicate below.	9.b. Monitoring Person(s) Name(s)	9.c. Results (units)	9.d. Location	9.e. Time	9.g. Interferences and Comments
N/A					

10. Safety Officer Review: [illegible]	Potential Health Effects: Irritant/Laceration, Organ Damage, Central Nervous System Effects, Cancer, Reproductive Damage, Low Back Pain, Temporary Hearing Loss, Dermatitis, Respiratory Effects, Bone Breaks, & Eye Burning	ICS-208-CG SSP-E-1 (rev 9/06): Page ___ of

IAP Period 6

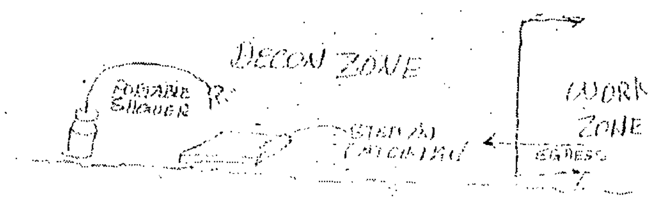
CG ICS SSP: PERSONAL PROTECTIVE EQUIPMENT	1. Incident Name: [illegible]	2. Date/Time Prepared: 9/7/17 1700	3. Operational Period: 12 HRS	4. Safety Officer (include method of contact): [illegible]
5. Supervisor/Leader:	6. Location and Size of Site: [illegible]	7. Hazards Addressed: [illegible]		8. For Emergencies Contact: [illegible]
9. Equipment: Eye Protect, Hard Hat, Respirator, Safety Vest, Gloves, Hearing protect, Level B PPE, Chem Tox Boots/Rubber				10. References Consulted:
11. Inspection Procedures:	12. Donning Procedures:	13. Doffing Procedures:		14. Limitations and Precautions (include maximum stay time in PPE):
15. Prepared by: [illegible]	16. Date, Time Briefed: [illegible]	Potential Health Effects: Bruise/Lacerations, Organ Damage, Central Nervous System Effects, Cancer, Reproductive Damage, Low Back Pain, Temporary Hearing Loss, Dermatitis, Respiratory Effects, Bone Breaker: Eye Burning		ICS 208-CG SSP-F: (Rev 9/06) Page: ___ of ___

CG ICS SSP: DECONTAMINATION

1. Incident Name: CPBR-07	2. Date/Time Prepared: 09-07-07 2000	3. Operational Period: 12	4. Safety Officer (include method of contact): Henry Kaul, CSP, CIH 832-817-8357 Shean Perry
5. Supervisor/Leader:	6. Location and Size of Site:	7. For Emergencies Contact:	8. Hazard(s) Addressed: Pond Water [illegible]
9. Equipment: N/A			10. References Consulted:

11. Contamination Avoidance Practices: USE PPE

12. Decon Diagram: ☐ Attached, ☐ Drawn below



13. Decon Steps:

14. Prepared By: Henry Kaul, CSP, CIH Shean Perry	15. Date/Time Briefed: 09/07/07 2100	Potential Health Effects: Bruise/Lacerations, Organ Damage, Central Nervous System Effects, Cancer, Reproductive Damage, Low Back Pain, Temporary Hearing Loss, Dermatitis, Respiratory Effects, Bone Breaks, Eye Burning	ICS-208-CG SSP-C (rev 9/06): Page ___ of ___

IAP Period 6

CG ICS SSP: ENFORCEMENT LOG	1. Incident Name: [illegible]	2. Date/Time Prepared: 09-07-07 2100	3. Operational Period: [illegible]	4. Safety Officer (include method of contact): [illegible]
5. Supervisor/Leader	6. For Emergencies Contact:			7. Attachments:

8.a. Job Task/Activity	8.b. Hazards	8.c. Deficiency	8.d. Action Taken	8.e. Safety Plan Amended?	8.f. Signature of Supervisor/Leader

9. Prepared By: [illegible] S. Henry	10. Date/Time Briefed: 9-7-07 2100	HAZARD LIST: Physical Safety, Toxic, Explosion/Fire, Oxygen Deficiency, Ionizing Radiation, Biological, Biomedical, Electrical, Heat Stress, Cold Stress, Ergonomic, Noise, Cancer, Dermatitis, Drowning, Fatigue, Vehicle, & Diving	ICS-208-CG SSP-H (rev 9/06): Page: ____ of ____

IAP Period 6

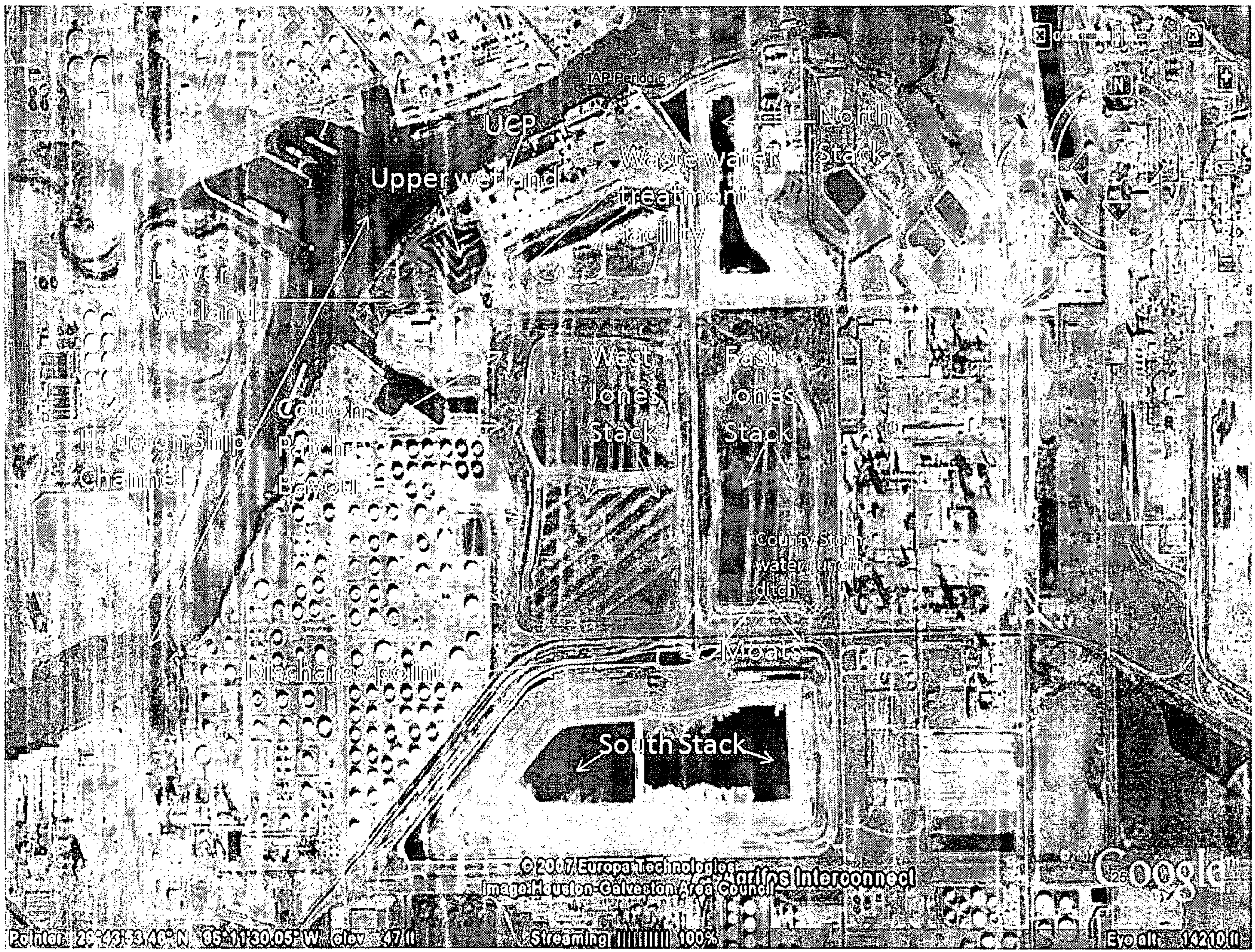
CG ICS SSP WORKER ACKNOWLEDGEMENT FORM	1. Incident Name: [illegible]	2. Site Location:	3. Attachments:	
4. Type of Briefing Safety Plan/Emergency Response Plan [ ] Start Shift [ ] Pre Entry [ ] Exit [ ] End of Entry [ ] Specify Other	5. Presented By:		6. Date Presented	7. Time Presented

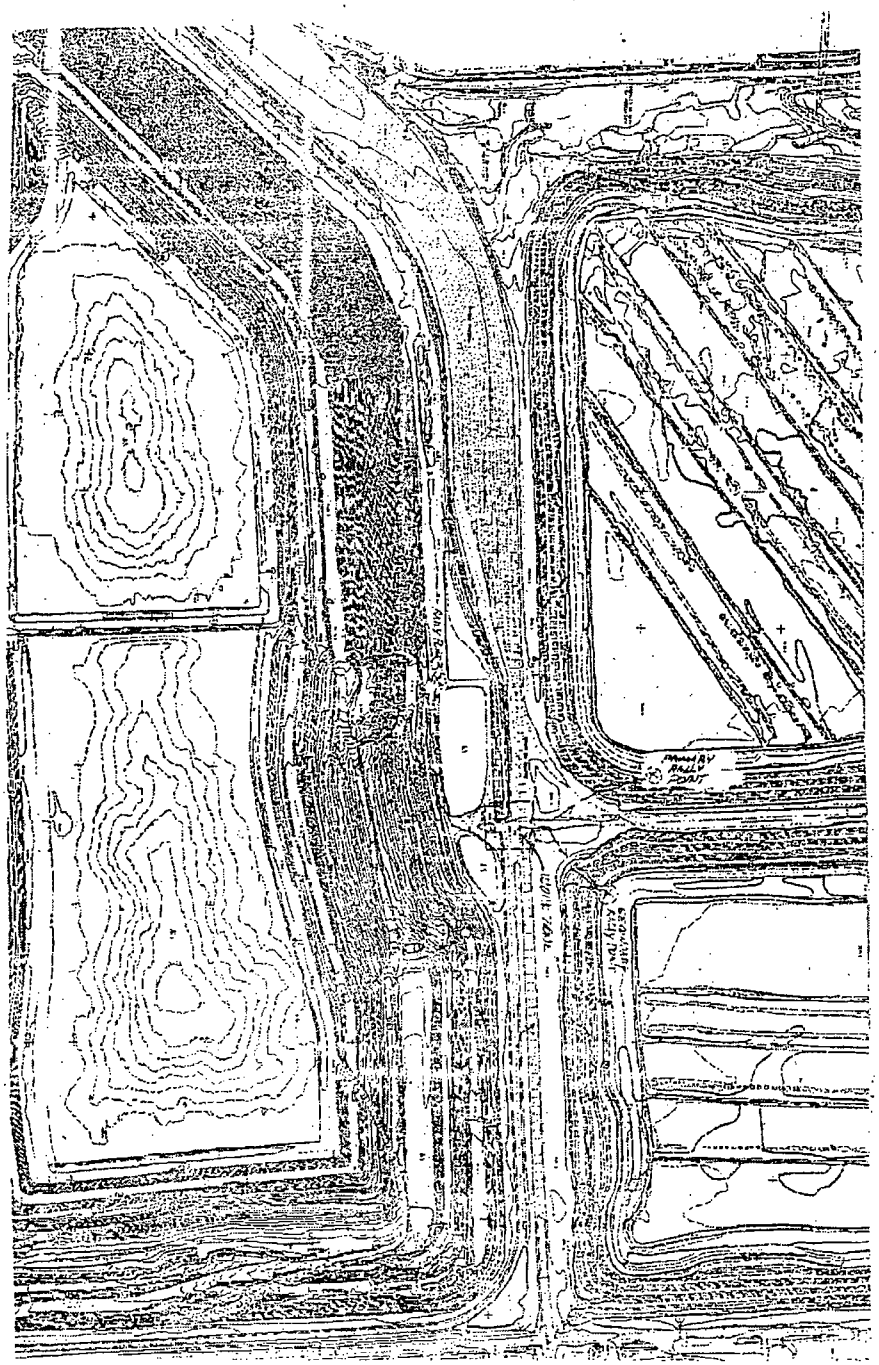
8.a. Worker Name (Print)	8.b. Signature*	8.c. Date	8.d. Time

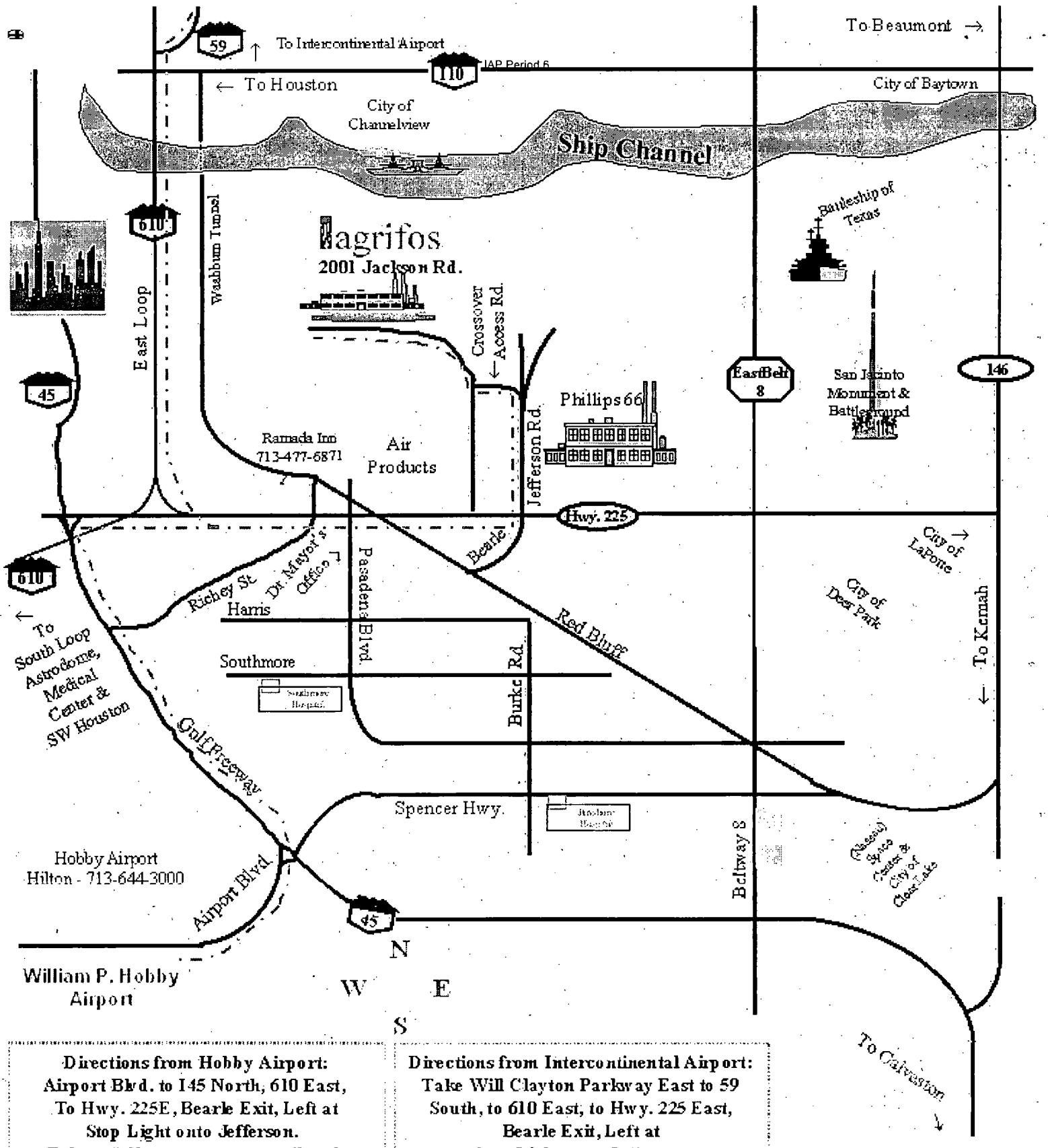
** By signing this document, I am stating that I have read and fully understand the plan and/or information provided to me.*

ICS-208-CG SSP-1 (rev 9/06): Worker Acknowledgement

Page ___ of ___


IAP Period 6
UCP
North Stack
Upper wetland
West Jones Stack
East Jones Stack
Moats
South Stack
© 2007 Europa Technologies
Image Houston-Galveston Area Council
Streaming 100%
Google





Directions from Hobby Airport:
Airport Blvd. to 145 North, 610 East, To Hwy. 225E, Bearle Exit, Left at Stop Light onto Jefferson.
Follow Jefferson, pass two railroad tracks and pass in front of Phillips.
Turn Left at first stop sign, where you will see Agrifos' sign. Go to the end of the road and turn right at the stop sign.
Follow that road into the plant.
713-920-5300
Fax # 713-920-5422

Directions from Intercontinental Airport:
Take Will Clayton Parkway East to 59 South, to 610 East, to Hwy. 225 East, Bearle Exit, Left at
Stop Light onto Jefferson.
Follow Jefferson and pass two railroad tracks and pass in front of Phillips.
Turn Left at first stop sign, where you will see Agrifos' sign. Go to the end of the road and turn right at the stop sign.
Follow that road into the plant.

MAP.PPT

IAP Period 6

Your National Weather Service

Pasadena, TX

Enter Your "City, ST" or zip code Go

NWS Houston, TX
Point Forecast: Pasadena, TX
29.66N -95.16W

Cell Phone Weather Link: www.srh.noaa.gov/wml
En Español
Last Update: 2:04 pm CDT Sep 12, 2007
Forecast Valid: 4pm CDT Sep 12, 2007-6pm CDT Sep 18, 2007

Forecast at a Glance

This Afternoon	Tonight	Thursday	Thursday Night	Friday	Friday Night	Saturday	Saturday Night	Sunday
100%	100%	80%	40%	60%	40%	40%	30%	30%
Heavy Rain	Heavy Rain	Heavy Rain	Heavy Rain	Heavy Rain	Chance Tstms	Chance Tstms	Chance Tstms	Chance Tstms
Hi 84°F	Lo 74°F	Hi 84°F	Lo 75°F	Hi 87°F	Lo 74°F	Hi 88°F	Lo 75°F	Hi 90°F

Detailed 7-day Forecast

Hazardous weather condition(s):

Flash Flood Watch
Hazardous Weather Outlook
Hurricane Local Statement
Inland Tropical Storm Warning
Short Term Forecast
Tropical Storm Warning

This Afternoon: Periods of showers and thunderstorms. Some of the storms could produce heavy rain. High near 84. East wind around 15 mph. Chance of precipitation is 100%.

Tonight: Periods of showers and thunderstorms. Some of the storms could produce heavy rain. Low around 74. Windy, with a east wind 15 to 20 mph increasing to between 25 and 30 mph. Winds could gust as high as 35 mph. Chance of precipitation is 100%.

Thursday: Periods of showers and thunderstorms, mainly before 1pm. Some of the storms could produce heavy rain. High near 84. Windy, with a west wind 25 to 30 mph decreasing to between 10 and 15 mph. Winds could gust as high as 35 mph. Chance of precipitation is 80%.

Thursday Night: A 40 percent chance of showers and thunderstorms. Some of the storms could produce heavy rain. Mostly cloudy, with a low around 75. West wind around 5 mph.

Friday: Showers and thunderstorms likely. Some of the storms could produce heavy rain. Mostly cloudy, with a high near 87. North wind around 5 mph. Chance of precipitation is 60%.

Friday Night: A 40 percent chance of showers and thunderstorms. Mostly cloudy, with a low around 74.

Saturday: A 40 percent chance of showers and thunderstorms. Mostly cloudy, with a high near 88.

Current Conditions [Move Down]

Houston / Ellington
Lat: 29.62 N Lon: 95.17 W Elev: 39 ft
Last Update on Sep 12, 11:50 am CDT
Not a Current Observation

Light Rain
Fog/Mist

79°F
(26°C)

Humidity:	94 %
Wind Speed:	E 12 MPH
Barometer:	29.98"
Dewpoint:	77°F (25°C)
Heat Index:	83°F (28°C)
Visibility:	4.00 mi.
More Local Wx:	**2 Day History:**

Radar/Satellite Image

Doppler Radar [Move Up]

Click Map for Forecast

IAP Period 6

Saturday Night: A 30 percent chance of showers and thunderstorms. Partly cloudy, with a low around 75.

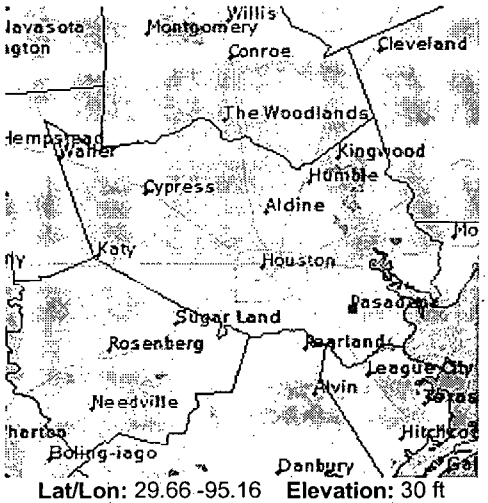
Sunday: A 30 percent chance of showers and thunderstorms. Partly cloudy, with a high near 90.

Sunday Night: Partly cloudy, with a low around 75.

Monday: A 20 percent chance of showers and thunderstorms. Partly cloudy, with a high near 90.

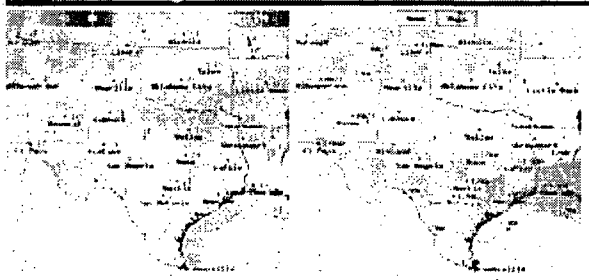
Monday Night: Partly cloudy, with a low around 76.

Tuesday: A 20 percent chance of showers and thunderstorms. Partly cloudy, with a high near 90.



Lat/Lon: 29.66 -95.16 **Elevation:** 30 ft

National Digital Forecast



Additional Forecasts

Zone Area Forecast for Harris County, TX
Air Quality Forecasts

Printable Forecast	Text Only Forecast
Text Forecast (°C)	About Point Forecasts
Hourly Weather Graph	Tabular Forecast
Forecast Discussion	SE TX Climatology
Tropical Weather	Fire Weather
Marine Information	NOAA Weather Radio
Rivers & Lakes AHPS	WWW Links
Model Data	SKYWARN
About Our Office	NWS Houston/Galveston Home

National Weather Service:
Houston, TX

Back to previous page

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Disclaimer

Locations within 5 miles of this point include...Deer Park TX...Pasadena TX...South Houston TX

IAP Period 6

National Weather Service

Watches, Warnings & Advisories

5 products issued by NWS for: Houston

Hazardous Weather Outlook

HAZARDOUS WEATHER OUTLOOK
NATIONAL WEATHER SERVICE HOUSTON/GALVESTON TX
1242 PM CDT WED SEP 12 2007

GMZ330-335-350-355-370-375-TXZ163-164-176>179-195>200-210>214-226-
227-235>238-131745-
AUSTIN-BRAZORIA-BRAZOS-BURLESON-CHAMBERS-COLORADO-FORT BEND-
GALVESTON-GALVESTON BAY-GRIMES-HARRIS-HOUSTON-JACKSON-LIBERTY-
MADISON-MATAGORDA-MATAGORDA BAY-MONTGOMERY-POLK-SAN JACINTO-
TRINITY-WALKER-WALLER-WASHINGTON-
WATERS FROM FREEPORT TO THE MATAGORDA SHIP CHANNEL 20 NM TO 60 NM-
WATERS FROM FREEPORT TO THE MATAGORDA SHIP CHANNEL OUT 20 NM-
WATERS FROM HIGH ISLAND TO FREEPORT 20 TO 60 NM-
WATERS FROM HIGH ISLAND TO FREEPORT OUT 20 NM-WHARTON-
1242 PM CDT WED SEP 12 2007

THIS HAZARDOUS WEATHER OUTLOOK IS FOR PORTIONS OF SOUTHEAST TEXAS.

A TROPICAL STORM WARNING IS IN EFFECT FROM PORT O`CONNOR TO
CAMERON LOUISIANA.

A FLASH FLOOD WATCH IS IN EFFECT UNTIL 7 PM CDT THURSDAY
FOR THE EASTERN HALF OF SOUTHEAST TEXAS.

.DAY ONE...THIS AFTERNOON AND TONIGHT
RAINBANDS WILL CONTINUE TO APPROACH AND MOVE INLAND ACROSS THE
UPPER SOUTHEAST TEXAS THIS AFTERNOON AND TONIGHT. THE MAIN THREAT
FROM TROPICAL STORM HUMBERTO WILL BE HEAVY RAINFALL AND THE
POTENTIAL FOR FLOODING...MAINLY ALONG AND EAST OF A SARGENT TO
HOUSTON TO LIVINGSTON LINE. RAINFALL TOTALS ARE EXPECTED TO RANGE
FROM 5 TO 10 INCHES IN THE ABOVE MENTIONED AREA. ISOLATED TOTALS
UP TO 15 INCHES IS POSSIBLE.

ISOLATED TORNADOES ARE ALSO A POSSIBILITY LATE THIS AFTERNOON AND
EVENING ACROSS COASTAL AREAS OF SOUTHEAST TEXAS.
OVERNIGHT...ISOLATED TORNADOES ARE POSSIBLE ALONG AND EAST OF A
FREEPORT TO HOUSTON TO LIVINGSTON LINE.

TIDE LEVELS WILL RANGE FROM 1 TO 3 FEET ABOVE NORMAL. THERE MAY BE
SOME MINOR COASTAL FLOODING ALONG THE BEACH FRONT AREAS EARLY
THURSDAY MORNING.

.DAYS TWO THROUGH SEVEN...THURSDAY THROUGH TUESDAY
TROPICAL STORM HUMBERTO WILL BE MOVING NORTH ACROSS EASTERN
PORTIONS OF SOUTHEAST TEXAS ON THURSDAY. THEREFORE...THE HEAVY

PORTIONS OF SOUTHEAST TEXAS ON THURSDAY. THEREFORE...THE HEAVY RAINFALL THREAT WILL CONTINUE FOR EASTERN AREAS.

.SPOTTER INFORMATION STATEMENT...
SPOTTER ACTIVATION IS POSSIBLE LATE THIS AFTERNOON AND TONIGHT.

$$

Inland Tropical Storm Warning

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE HOUSTON/GALVESTON TX
125 PM CDT WED SEP 12 2007

...INLAND TROPICAL STORM WARNING IN EFFECT UNTIL 7 AM CDT THURSDAY...

.TROPICAL STORM HUMBERTO WILL MOVE INLAND TONIGHT BRINGING STRONG WINDS OF 25 TO 40 MPH WITH HIGHER GUSTS NEAR 50 MPH IN ASSOCIATED SQUALLS.

TXZ200-213-214-226-227-235>238-130230-
/O.NEW.KHGX.TI.W.0002.070912T1825Z-070913T1200Z/
BRAZORIA-CHAMBERS-FORT BEND-GALVESTON-HARRIS-JACKSON-LIBERTY-
MATAGORDA-WHARTON-
INCLUDING THE CITIES OF...ALVIN...ANAHUAC...ANGLETON...BAY CITY...
CLEVELAND...DAYTON...EDNA...EL CAMPO...FREEPORT...FRIENDSWOOD...
GALVESTON...HOUSTON...HUMBLE...KATY...LAKE JACKSON...
LEAGUE CITY...LIBERTY...MISSOURI CITY...MONT BELVIEU...PALACIOS...
PASADENA...PEARLAND...PIERCE...RICHMOND...ROSENBERG...
SUGAR LAND...TEXAS CITY...TOMBALL...WHARTON...WINNIE
125 PM CDT WED SEP 12 2007

...INLAND TROPICAL STORM WARNING IN EFFECT UNTIL 7 AM CDT THURSDAY...

THE NATIONAL WEATHER SERVICE IN HOUSTON/GALVESTON HAS ISSUED AN INLAND TROPICAL STORM WARNING...WHICH IS IN EFFECT UNTIL 7 AM CDT THURSDAY.

STRONG WINDS WILL ACCOMPANY THE ARRIVAL OF TROPICAL STORM HUMBERTO TONIGHT AS IT COMES ASHORE. SUSTAINED WINDS OF 25 TO 40 MPH WITH GUSTS OF 40 TO 50 MPH WILL BE POSSIBLE. THE STRONGER WINDS WILL BE PRIMARILY IN AREAS TO THE EAST OF THE HIGHWAY 59 CORRIDOR...WITH AREAS IN BRAZORIA...GALVESTON...EASTERN HARRIS...CHAMBERS COUNTY HAVING THE GREATEST POTENTIAL OF SEEING THESE STRONG WINDS. SUSTAINED AND PERSISTENT WINDS IN EXCESS OF 30 MPH WILL BE POSSIBLE ALONG THE IMMEDIATE COAST BEGINNING BETWEEN 7 AND 8 PM. THE WINDS WILL SPREAD INLAND AND INTO THE INLAND TROPICAL STORM WARNING AREA AFTER 9 PM. THE WINDS SHOULD RELAX GRADUALLY AS THE SYSTEM MOVES INLAND.

MINOR DAMAGE MAY OCCUR IN OLDER MOBILE HOME PARKS. NEWLY PLANTED TREES AND SHRUBS MAY BE UPROOTED IF NOT SECURED PROPERLY. SOME SMALL TWIGS WILL SEPARATE FROM TREES. RESIDENTS SHOULD MOVE UNFASTENED ITEMS....SUCH AS GARBAGE CANS AND DECK FURNITURE...INDOORS. UNSECURED LIGHTWEIGHT ITEMS MAY BECOME PROJECTILES...CAUSING ADDITIONAL DAMAGE. MOST NEWLY PLANTED TREES AND SHRUBS WILL BE DAMAGED OR UPROOTED. SOME ROTTING SMALL TREES WILL BE UPROOTED...AND ROTTEN LARGE BRANCHES WILL SNAP. NUMEROUS SMALL TWIGS WILL SEPARATE FROM TREES.

FOR THE LATEST INFORMATION MONITOR NOAA WEATHER RADIO AND THE INTERNET FOR THE LATEST FORECASTS...AND WARNINGS.

$$

Hurricane Local Statement

TROPICAL STORM HUMBERTO INTERMEDIATE LOCAL STATEMENT
TXZ163-164-176>179-195>200-210>214-226-227-235>238-130030-

URGENT - IMMEDIATE BROADCAST REQUESTED
TROPICAL STORM HUMBERTO INTERMEDIATE LOCAL STATEMENT
NATIONAL WEATHER SERVICE HOUSTON/GALVESTON TX
125 PM CDT WED SEP 12 2007

...TROPICAL DEPRESSION NUMBER NINE STRENGTHENS TO TROPICAL STORM HUMBERTO IN THE NORTHWEST GULF OF MEXICO... |

THIS STATEMENT RECOMMENDS ACTIONS TO BE TAKEN BY PERSONS IN THE FOLLOWING COUNTIES:

BRAZORIA...CHAMBERS...GALVESTON...HARRIS...JACKSON...MATAGORDA...
...WHARTON...FORT BEND...LIBERTY...MONTGOMERY...SAN JACINTO...
AND POLK

...WATCHES AND WARNINGS...
A TROPICAL STORM WARNING IS IN EFFECT FROM PORT O`CONNOR TEXAS TO CAMERON LOUISIANA.

AN INLAND TROPICAL STORM WARNING IS IN EFFECT ALONG AND SOUTH OF HIGHWAY 59 UNTIL 7 AM CDT THURSDAY.

A FLASH FLOOD WATCH IS IN EFFECT UNTIL 7 PM CDT THURSDAY ALONG AND TO THE EAST OF A LINE FROM EDNA TO EL CAMPO TO HOUSTON TO CONROE TO LIVINGSTON.

...STORM INFORMATION...
AT 100 PM CDT...1800Z...THE CENTER OF TROPICAL STORM HUMBERTO WAS

IAP Period 6

LOCATED NEAR LATITUDE 28.3 NORTH...LONGITUDE 95.1 WEST OR ABOUT 70 MILES...115 KM...SOUTH-SOUTHWEST OF GALVESTON TEXAS AND ABOUT 145 MILES...235 KM...EAST-NORTHEAST OF CORPUS CHRISTI TEXAS.

HUMBERTO IS MOVING TOWARD THE NORTH NEAR 6 MPH...9 KM/HR...AND THIS GENERAL MOTION IS EXPECTED TO CONTINUE OVER THE NEXT 24 HOURS. ON THE FORECAST TRACK...THE CENTER OF HUMBERTO SHOULD BE CROSSING THE TEXAS COAST WITHIN THE WARNING AREA TONIGHT.

MAXIMUM SUSTAINED WINDS HAVE INCREASED AND ARE NOW NEAR 45 MPH...75 KM/HR...WITH HIGHER GUSTS. SOME ADDITIONAL STRENGTHENING IS POSSIBLE PRIOR TO LANDFALL. THE EARLIER AIR FORCE RESERVE UNIT RECONNAISSANCE AIRCRAFT RETURNED TO BASE FOR MECHANICAL REASONS...BUT A SECOND AIRCRAFT IS EXPECTED TO REACH HUMBERTO WITHIN AN HOUR OR SO.

ESTIMATED MINIMUM CENTRAL PRESSURE IS 1005 MB...29.68 INCHES.

...PRECAUTIONARY AND PREPAREDNESS ACTIONS...
RESIDENTS ACROSS THE EASTERN HALF OF SOUTHEAST TEXAS SHOULD PREPARE FOR HEAVY RAINFALL AND POSSIBLE FLOODING. REMEMBER TURN AROUND DON`T DROWN. DO NOT DRIVE YOUR VEHICLE INTO AREAS WHERE WATER COVERS THE ROADWAY.

TROPICAL STORM FORCE WINDS WILL MAKE DRIVING POTENTIALLY HAZARDOUS FOR HIGH PROFILE VEHICLES THIS EVENING AND TONIGHT. LOOSE ITEMS...SUCH AS LAWN FURNITURE AND TRASH CANS SHOULD ALSO BE SECURED OR PICKED UP.

...STORM SURGE AND STORM TIDE...
COASTAL STORM SURGE FLOODING OF 1-3 FEET ABOVE NORMAL TIDE LEVELS CAN BE EXPECTED ALONG THE UPPER TEXAS COAST.

LOCATION	HIGH TIDE TIMES	EXPECTED WATER MAX
MORGANS POINT...		
	THU 4:02 AM.	3.2 FEET.
CLEAR LAKE ENTRANCE...		
	WED 11:46 PM.	3.2 FEET.
EAGLE POINT...		
	WED 9:35 PM.	3.3 FEET.
	THU 10:36 PM.	2.3 FEET.
PORT BOLIVAR...		
	WED 5:55 PM.	3.2 FEET.
	THU 5:54 AM.	3.6 FEET.
	THU 6:56 PM.	2.7 FEET.
GALVESTON CHANNEL...		
	WED 5:41 PM.	3.2 FEET.
	THU 5:40 AM.	3.6 FEET.
	THU 6:42 PM.	2.7 FEET.
GALVESTON PLEASURE PIER...		
	WED 4:35 PM.	3.7 FEET.
	THU 4:34 AM.	4.3 FEET.
	THU 5:36 PM.	3.5 FEET.
JAMAICA BEACH...		
	WED 8:19 PM.	3.4 FEET.
	THU 8:18 AM.	3.7 FEET.
	THU 9:20 PM.	2.8 FEET.

IAP Period 6

THU 9:20 PM. 2.6 FEET.

SAN LUIS PASS...
WED 5:32 PM. 2.0 FEET.
THU 5:31 AM. 2.4 FEET.
THU 6:33 PM. 2.2 FEET.

FREEPORT...
WED 4:57 PM. 3.7 FEET.
THU 4:56 AM. 4.0 FEET.
THU 5:58 PM. 3.2 FEET.

PORT O CONNOR...
WED 7:34 PM. 2.6 FEET.
THU 7:30 AM. 2.9 FEET.
THU 9:02 PM. 2.1 FEET.

NOTE: TIDE LEVELS ARE REFERENCED FROM MEAN LOWER LOW WATER

...WINDS...
WINDS ARE EXPECTED TO INCREASE TO 35 TO 45 MPH ALONG THE IMMEDIATE COAST BETWEEN SARGENT AND HIGH ISLAND THIS EVENING. AREAS ALONG THE GALVESTON BAY SHORELINE WILL ALSO LIKELY SEE WINDS INCREASE TO 30 TO 45 MPH THIS EVENING. GUSTS BETWEEN 40 AND 50 MPH WILL BE POSSIBLE IN SQUALLS MOVING INLAND FROM THE GULF OF MEXICO THIS EVENING AND OVERNIGHT...ESPECIALLY ACROSS COASTAL AREAS.

INLAND AREAS OF THE COASTAL COUNTIES WILL LIKELY SEE WIND SPEEDS RANGING FROM 25 TO 40 MPH...WITH HIGHER GUSTS IN SQUALLS.

AREAS SOUTH OF HIGHWAY 59 ACROSS WHARTON...FORT BEND...HARRIS AND LIBERTY COUNTIES WILL LIKELY SEE WIND SPEEDS BETWEEN 25 AND 40 MPH....WITH HIGHER GUSTS IN SQUALLS.

...RAINFALL...
ALONG AND EAST OF A SARGENT TO HOUSTON TO LIVINGSTON LINE RAINFALL AMOUNTS OF 5 TO 10 INCHES ARE EXPECTED WITH ISOLATED TOTALS OF 15 INCHES POSSIBLE IN THIS AREA THROUGH THURSDAY.

...TORNADOES...
ISOLATED TORNADOES WILL BE POSSIBLE ACROSS COASTAL AREAS LATE THIS AFTERNOON AND OVERNIGHT. OVERNIGHT...ISOLATED TORNADOES ARE POSSIBLE EAST OF A SARGENT TO HOUSTON TO LIVINGSTON LINE.

..NEXT UPDATE...
THE NEXT LOCAL STATEMENT WILL BE ISSUED AROUND 5 PM CDT.

FOR MORE TROPICAL WEATHER INFORMATION...SEE THE NATIONAL HURRICANE CENTER WEBPAGE AT HTTP://WWW.NHC.NOAA.GOV OR THE HOUSTON/GALVESTON NATIONAL WEATHER SERVICE WEB PAGE AT HTTP://WWW.SRH.NOAA.GOV/HGX.

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IAP Period 6

Tropical Storm Warning

HUMBERTO WATCH/WARNING BREAKPOINTS/INTERMEDIATE ADVISORY NUMBER 1A
NWS TPC/NATIONAL HURRICANE CENTER MIAMI FL AL092007
100 PM CDT WED SEP 12 2007

.TROPICAL STORM HUMBERTO

LAZ051-TXZ213-214-215-235-236-237-238-122100-
/O.CON.KNHC.TR.W.1009.000000T0000Z-000000T0000Z/
100 PM CDT WED SEP 12 2007

PORT-OCONNOR-TX	28.39N 96.41W
CAMERON-LA	29.78N 93.30W

$$

Flash Flood Watch

FLOOD WATCH
NATIONAL WEATHER SERVICE HOUSTON/GALVESTON TX
1010 AM CDT WED SEP 12 2007

TXZ200-213-214-226-227-235>238-122315-
/O.EXT.KHGX.FF.A.0010.000000T0000Z-070914T0000Z/
/00000.0.ER.000000T0000Z.000000T0000Z.000000T0000Z.OO/
BRAZORIA-CHAMBERS-FORT BEND-GALVESTON-HARRIS-JACKSON-LIBERTY-
MATAGORDA-WHARTON-
INCLUDING THE CITIES OF...ALVIN...ANAHUAC...ANGLETON...BAY CITY...
CLEVELAND...DAYTON...EDNA...EL CAMPO...FREEPORT...FRIENDSWOOD...
GALVESTON...HOUSTON...HUMBLE...KATY...LAKE JACKSON...
LEAGUE CITY...LIBERTY...MISSOURI CITY...MONT BELVIEU...PALACIOS...
PASADENA...PEARLAND...PIERCE...RICHMOND...ROSENBERG...
SUGAR LAND...TEXAS CITY...TOMBALL...WHARTON...WINNIE
1010 AM CDT WED SEP 12 2007

...FLASH FLOOD WATCH NOW IN EFFECT THROUGH THURSDAY EVENING...

THE FLASH FLOOD WATCH IS NOW IN EFFECT FOR

* A PORTION OF SOUTHEAST TEXAS...INCLUDING THE FOLLOWING
  COUNTIES...BRAZORIA...CHAMBERS...FORT BEND...GALVESTON...
  HARRIS...JACKSON...LIBERTY...MATAGORDA AND WHARTON.

* THROUGH THURSDAY EVENING

* TROPICAL DEPRESSION NUMBER NINE HAS FORMED IN THE NORTHWEST GULF
  OF MEXICO. THE DEPRESSION WILL MOVE NORTHWARD AND COULD
  STRENGTHEN INTO A TROPICAL STORM LATER TODAY AS IT APPROACHES
  THE UPPER TEXAS COAST. VERY HEAVY RAINFALL IS EXPECTED ACROSS
  PRIMARILY THE EASTERN HALF OF SOUTHEAST TEXAS AS SHOWERS AND
  THUNDERSTORMS TRAIN OVER PORTIONS OF SOUTHEAST TEXAS. THROUGH
  THURSDAY...AVERAGE RAINFALL AMOUNTS OF 5 TO 10 INCHES WITH
  ISOLATED AMOUNTS OF UP TO 15 INCHES ARE POSSIBLE ALONG AND EAST

IAP Period 6

OF A SARGENT TO HOUSTON TO LIVINGSTON LINE.

* A FLASH FLOOD WATCH MEANS RAPIDLY RISING WATER OR FLOODING IS POSSIBLE WITHIN THE WATCH AREA. IF YOU ARE IN THE WATCH AREA... CHECK PREPAREDNESS REQUIREMENTS...KEEP INFORMED...AND BE READY FOR QUICK ACTION IF FLASH FLOODING IS OBSERVED OR IF A WARNING IS ISSUED.

DO NOT DRIVE YOUR VEHICLE INTO AREAS WHERE THE WATER COVERS THE ROADWAY. THE WATER DEPTH MAY BE TOO GREAT TO ALLOW YOUR CAR TO CROSS SAFELY. VEHICLES CAUGHT IN RISING WATER SHOULD BE ABANDONED QUICKLY. IF YOUR VEHICLE STALLS...ABANDON IT AND SEEK HIGHER GROUND IMMEDIATELY. RAPIDLY RISING WATER MAY ENGULF YOUR VEHICLE AND ITS OCCUPANTS AND SWEEP THEM AWAY. MOVE TO HIGHER GROUND.

LISTEN TO NOAA WEATHER RADIO OR YOUR LOCAL MEDIA FOR THE LATER UPDATES ON THIS SITUATION.

$$

Agrifos Fertilizer, Inc-
Pasadena Operations

To: Niell Irvin

From: R. Keith Darnell

CC: Robert Stewart, Sa Tran, Jim McClendon, Margaret Smith, Darrell Raymond

Date: 9/9/2007

Re: Plan to Treat Process Water Using the Water Treatment Plant

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1. Background.

1.1. **General Arrangement** – The Water Treatment Plant is a "single lime" system. The waters collected from the North & South moats of the #1 Gyp Stack are pumped to the Lime Mix Tank, where the pH is taken up to 10 – 10.5. This tank gravity flows to the Acid Mix Tank, where the pH is adjusted with sulfuric acid to a dischargable level (typically about 6 - 7). This tank flows to the Reactor, which allows residence time for the precipitated species to grow in size for improved settling. This tank gravity flows to the Water Treatment Clarifier. The Clarifier flows through a parshall flume into the Effluent Tank, where it mixes with CNPW (contaminated non-process Water) before being pumped to the upper wetlands. Total flow as well as pH are monitored. Clarifier underflow (sludge) is pumped to the top of the west side of #1 gyp stack. Treated water from this sludge percolates though the stack and is eventually re-worked through the treatment system.

1.2. **Hydraulic Capacity** – The system has an approximate maximum instantaneous hydraulic capacity (ability to flow liquids through the unit) of 1,050 GPM (1.5 MMGPD). The unit is typically operated about 40 hours a week to handle "normal" water flows. This translates to about 0.375 MMGPD. Potential available hydraulic capacity is therefore (1.5 -0.375) = 1.125 MMGPD or a 780 GPM rate. The actual treatment capacity will be limited by the ability to treat the process water to a level that is acceptable to the Unified Command.

2. Proposed Changes to Treat Process Water.

2.1. **General Changes –**

2.1.1. The South and North Moats will be treated as normal to get their level down as far as possible before introducing the process water through a valve off the return line from the South Gyp Stack system. This valve is located on the SE corner of the South Moat.

2.1.2. The discharge line which normally goes to the upper wetlands will be disconnected and a new HDPE line will be run to discharge at the 002 outfall weir.

2.2. **Determination of Treatment Rate** – Samples of lime slurry and process water were taken. The process water was neutralized to a pH of 4, 6, and 10. The sample taken to a pH of 10 was taken back to below 9, which is a ph level that meets discharge criteria. The treated samples were filtered and the filtrates will be analyzed for all parameters of Agrifos' TPDES permit. A majority of the analysis requires an outside lab and results are expected back on Saturday afternoon. (The baseline numbers for the process water should be 24 hours later). With the initial results, the UC can decide which pH treatment level will be acceptable.

2.2.1. **Lime addition to the mix tank** – It is anticipated that this will be the initial bottleneck for treatment. Our current delivery system is capable of 40 – 60 GPM of flow to neutralize the acid. The flowing table shows theoretical treatment rates at various pH targets:

pH Target	Gal Ca(OH)2 Required per Gal of process water	Achievable treatment rates, GPM / (MMGPD)
4	0.0625	640 – 960 / (0.922 – 1.382)
6	0.167	240 – 359 / (0.346 – 0.517)
10	0.200	200 – 300 / (0.288 – 0.432)

2.2.2. Lime shipments (assuming a nominal 5,000 gallons per load) will be in the order of 12 – 18 truckloads per day. The storage tank has a nominal capacity of 20,000 gallons or about 4 truck loads. We have two established vendors and are trying to secure others to ensure uninterrupted supply.

2.3. **Potential Issues / Concerns –**

2.3.1. **Sludge Handling** - The process generates a sludge from the formation of calcium fluoride / calcium phosphate calcium sulfate. The underflow sludge from the clarifier is pumped to the top of the west end of #1 Gyp Stack, where the water percolates through the stack and goes back through the treatment system. The effect of increased sludge generation will have to be closely monitored & may limit treatment rates.

2.3.2. **Staffing** - We three personnel which are current their training. This should be enough to commence a 24 / 7 operation. Longer term operation would require realignment and retraining of others.

2.3.3. **Ammonia Levels in Effluent**– Our treatment system was never designed & is not set up to remove ammonia. It will definitely exceed our permitted levels.

2.3.4. **Additional Rainfall** – The #1 Stack and areas of the processing plant are in our "contained watershed" and as such must be treated before release. Handling these rain events as they occur could slow our treatment of process water.

RKD/kd

DRAFT, 8 Sept. 2007.

Resources at Risk for Initial Evaluation of Proposed Treatment/Emergency Discharge Plan Associated with the Cotton Patch Bayou Acid Incident

I. Spill Source Information. The following Resources at Risk analysis was prepared as part of the trade-off discussion to consider an emergency discharge partially treated water from a gypsum stack area into the Houston Ship Channel near Pasadena TX. The discharge rate would be between 200,000 and 250,000 gallons per day of treated water. The proposed on-site treatment would mitigate the acidity of the phosphoric acid and reduce other permitted constitutes of concern to within permitted standards with the exception of ammonia. At a rate of 200 gallons per minute, the ammonia values would be near the daily maximum, and over a month period, the daily average would be exceeded. With the addition of some flow through water for additional dilution, the average concentration of ammonia is estimated to be between 40 and 60 ppm in the discharge effluent.

The gypsum stack is operated by Agrifos. Agrifos is a fertilizing facility that extracts phosphorus from mineral ores. The byproduct wastes include phosphoric acid, gypsum, fluoride, sulfates, and processed water, which are often stored as large piles of solids. Surrounding the pile at the facility is a moat that contains processed water that is normally recycled. The moat water has a pH of 2.0 or less, and is mostly phosphoric acid solution

II. Geographic Region Covered. The area covered by this report extends for the entire length of the Houston Ship Channel.

III. Biological Resources at Risk. The main resources at risk are aquatic fish and shellfish. Fish species likely to be present in the Houston Ship Channel include black drum, red drum, blue and channel catfish common carp, striped and white bass, southern flounder, and speckled seatrout (based on fish sampled for tissue quality). Blue crab and shrimp are also likely to be present. The ship channel is not likely to be an important area for spawning habitat or juvenile fish rearing. According to a 1997 book by Oborney, the inland portion of the Houston Ship Channel and its major tributaries have exhibited a history of conditions unsuitable to sustain populations of aquatic life. He states that wastewater treatment in the Houston area has continually improved since the late 1960s. It also appears that aquatic life conditions in the Houston Bayou System are improving. An area once referred to as a "biological desert" is now capable of sustaining populations of aquatic life. Therefore, there is a significant risk of fish and shellfish kills from the controlled release.

Ammonia:
According to the USEPA Ambient Water Quality Criteria for Ammonia (saltwater) published in 1989, available data on the acute toxicity of ammonia to 21 saltwater animals in 18 genera showed LC50 concentrations ranging from 0.23 to 43 mg NH3/L. Winter flounder is the most sensitive species, with a mean LC50 of 0.492 mg/L. The

mean acute sensitivity of 88 percent of the species tested was within a factor of ten of that for the winter flounder. Fishes and crustaceans are well represented among both the more sensitive and more resistant species; mollusks are generally resistant. For coastal marine or saltwater species, the available data provide no evidence that temperature or salinity have a major or consistent influence on the toxicity of NH3. Hydrogen ion concentration does increase toxicity of NH3 at pH below 7.5 in some, but not all species tested; above pH 8, toxicity may increase, decrease, or be little altered as pH increases, depending on species. Table 1 shows the USEPA water quality criteria for salt water aquatic life for ammonia.

Table 1. The maximum concentrations of total ammonia (TAN mg/liter) to protect fish health at 10 ppt seawater concentrations, based on EPA water quality criteria for ammonia (saltwater) published in 1989.

	Temperature °C		
	20	25	30
pH			
7.0	62	44	29
7.6	16	11	7.7
8.0	6.4	4.6	3.1

The aerial extent of impacts will be a function of the dilution rate. If we estimated an emergency acceptable level of 10 ppm in the receiving stream (note, this value has not been determined acceptable at this time), ammonia concentrations would have to be rapidly diluted in the receiving stream by a factor of 5. With a dilution factor of 10 or more, the ammonia levels should drop below those likely to affect fish and shellfish. What is not known at present is what dilution rate can be expected over time in the Houston Ship Channel, i.e., what would be the footprint of toxic ammonia concentrations. NOAA is considering a model that would assess the proposed discharge (this option is still being investigated). There should also be an assessment as to any eutrophication issues, before seeking RRT approval.

Note this assessment was prepared as part of the emergency response to the Cotton Patch Bayou Response at the Agrifos Facility, Pasadena TX. This document has not been extensively reviewed, and is intended only for evaluation of emergency response options by the incident command. Prepared by Jacqui Michel, consultant, and Charlie Henry, NOAA Scientific Support Coordinator.

Storage Work Group Findings
Cotton Patch Bayou Release 07
September 8, 2007

Work Group (WG) Members: Tom Edwards, Roger Johnson, and Jim McClendon from Agrifos; Coast Guard - Commander Gatlin from Sector Houston; Commander Kammer from the Gulf Strike Team; Rob Tennyson representing EPA; Kelly Wilson (RP IC) representing Agrifos.

Purpose: Examine and recommend storage alternatives to prevent future releases of phosphoric acid contaminated water to the environment.

Approach: The workgroup evaluated on-site and off-site storage options using an "expanding square" approach. The group brainstormed all potential options and their limitations. Planning and estimates are based on 35 million gallons – the minimum deemed essential to mitigating current high levels at the South Stack and Stack 4. We did not evaluate treatment options. We did not consider cost as a limiting factor. We did consider environmental, logistical, and operational issues in rating the storage options. The work group assigned a qualitative (best judgment of the work group) color rating to the storage options as follows: Red – not viable based on limitations; Yellow – possible but need UC decision and/or further evaluation; Green – best available.

On-site options:

- **Add portable storage capacity on-site.** The work group determined that it would take seven thousand (7,000) 5,000 gallon tanks (compatible with the pH 2 liquid) to store 35 million gallons. Benefits: eliminates "compounding effect" of open storage due to rain. Keeps substances completely contained from the environment. Limitations: Does not provide capacity flexibility. Acquiring, locating and managing the tanks present significant logistical issues. Rating: Red
- **Create more moat space at base of the South Stack, especially at the east end.** Benefits: none identified by the WG. Limitations: This was suggested at an early UC meeting. Removing soil or gypsum from near the retaining wall to allow more space for liquid is not recommended by the engineers. The failed area of the wall had a full soil layer against it when it suffered undermining effects; removing soil from other areas could lead to additional walls failures. There is no way to increase the wall height because of current high level of liquid. Rating: Red.
- **Use moat space at Stack One (North and South moats) as temporary storage.** Benefits: no significant benefits because capacity is only ~10% of minimum needed. Total capacity for both moats is approximately 4 million gallons. These moats are currently used to manage the facility's contact water which goes to the treatment plant for treatment and discharge. The facility needs some of this area to manage its contact water. These moats will also be needed if the throughput treatment option is approved by the UC. Rating: Red
- **Pump contaminated water to West Jones Spoils Area w/ site improvements and liner.** An engineering analysis has been conducted for this site for

containment and use as a gypsum stack. The site (Jones East and West) is already permitted for a gypsum stack. Benefits: Would gain 100 million gallons (maximum recommended operational level) of open storage capacity. Limitations: significant site improvements would need to be made to the site; a 200 ft set-back berm would be constructed; the containment wall would be increased by 10 vertical feet, and the "pond" would need to be lined with an HDPE liner. The holding pond would be subject to rain effects and would need to be actively managed to prevent overflow. The engineers estimated that site improvements would take 6 months if permitting and other logistical issues are addressed promptly. Rating: Yellow

- **Pump contaminated water to West Jones Spoils Area w/ minimal site improvement and no liner.** Benefits: Would give near-term relief of approximately 23 million gallons at a 1 foot depth level at the 70 acre site. Limitations: Soils are not suitable for unlined storage; the berms and outfall areas would need significant structural improvement even for a 1-2 foot capacity; rainfall would also need to be managed. This option could create long-term remediation issues due to soil permeability. A wildlife assessment may need to be conducted as well. Rating: Red
- **Pump contaminated water to East Jones Spoils Area**. Benefits: none identified by the WG. Limitations: Same as unlined Jones West location. This area would be significantly smaller than Jones West if an unlined option is considered further. Rating: Red
- **Process Area and Wetlands**. There is no viable storage in either of these areas.
- **Stack Four**. This area is already at maximum capacity (10 million gallons) and is part of the 35 million gallons we are trying to store at another location. Stack Four run-off is being pumped to the South Stack to minimize the chance of release at a second location.

Off-Site options:

- **Transport and store the contaminated water to another facility.** The work group examined all neighboring facilities for storage capacity (Citgo, Magellan, Sheffield Steel; Kinder Morgan; Tessesderlo, Air Products, etc.). Limitations: None of the facilities have excess capacity, and there are no similar facilities to Agrifos; several of the local terminal companies are trying to expand their tankage locally but geography of the area is very limited. All the storage tanks identified are steel and are not compatible with the pH 2 water. The WG also discussed the possibility of using concrete containment areas if located, but none were identified. The WG deemed the likelihood of getting permission to store the liquid at another facility in an open-storage situation as extremely unlikely. Rating: Red

  Note: the work group recommends inquiring with Gulf Coast Waste Disposal to see if they can store some liquid until treatment options are determined and implemented. Transportation of liquid is also a logistical issue. Rating: Yellow
- **Divert county ditch run-off and use ditch as emergency containment**. This was discussed but to fraught with problems to even rate. The storm run-off is unpredictable; the county would probably never agree; and the contaminated

water would have to be pumped and treated quickly to minimize use of the ditch as a contingency.

- **Use marine barges.** The work group learned from Chief Tilimon that this option was considered but there are no marine barges available that are compatible with the material. It would take approximately 105 barges to hold approximately 25 million gallons and it would still have to be transported for treatment. Rating: Red
- **Use rail cars.** The work group determined it would take approximately 1700 rail cars to store 35 million gallons of water. Rating: Red

Conclusions and recommendations:

The work group did not find any easy or relatively quick storage solutions. It does make the following recommendations:

- Develop a proposal and plan for the Jones West Spoils Area – "lined" option including a complete list of issues and timeline for building and using for UC consideration by close of business Monday September 10th.
- Have UC Engage EXXON-MOBIL and EPA to determine exact status of the pending injection well permit. Being able to use the well by October could improve the short-term situation.
- Continue to examine transport of contaminated water to Gulf Coast Waste Disposal facility via pipeline for storage and/or disposal.

Disaster Scenarios and Response

Worst Case Scenario – Catastrophic Stack Failure:

- Spill of full contents of Pond Water (170 million Gallons of 2% Phosphoric Acid) with wash of Phosphogypsum.
- Involvement of neighboring rail yard, GATX & Crown Central Petroleum tank farms, other neighboring plants (Kinder Morgan, Air Products, and potentially others.)

From historic spill on same site (different ownership):

Overview: On April 6, 1992, a 600-foot long section of retaining wall of a gypsum slurry pile failed at the Mobil Mining and Minerals facility in Pasadena, Texas, causing 45 million gallons of a 3 percent phosphoric acid and hydrated gypsum mixture to spill through a small bayou and into the Houston Ship Channel. Most of the material was released on that one day but leaking continued for several days. This mixture flooded control ditches, open fields, and bayous.

The spill caused significant injuries to freshwater, marine, and estuarine wildlife, fishes, invertebrates, plants and sediments. There was a significant loss of habitat for terrestrial and aquatic animals in the upland fields and drainage canals. There was also direct mortality to terrestrial animals, primarily ground-nesting birds, rodents, and reptiles. The injury to the surface waters was widespread. The spilled material had a Ph of 1.5. This adversely affected the water quality within approximately 7 miles of the Houston Ship Channel for at least one week.

NOAA http://www.darrp.noaa.gov/southeast/mobil/index.html

The current volume of pond water in the gypsum stack is approximately 3 times greater than the volume in 1992. The potential for impact upon neighboring industry and surrounding community has increased substantially.

Weather or Production Interruption Scenario – Water in Excess of Storage Capacity:

Normal operations of the production facility operate in such a way that pond water should see a routine net loss. Water from the ponds is utilized during the production process. While some water is returned to the stack in the form of slurry, more water is consumed than is returned. Because the stacks are open to the elements, rain increases the pond water levels. Excessive rainfall, particularly when coupled with work stoppage, could result in pond levels above safe levels. When pond water levels exceed safe levels (12 inches from top) wave action creates an erosive danger to the structural integrity of the gyp stack.

PREVENTIVE ACTIONS

To prevent catastrophic failure, diminished structural integrity or overwash, it is imperative to maintain levels of pond water at a level no higher than 12 inches from top of the gypsum stack. During normal operations, pond water is transferred among ponds

and moats, and is consumed in production processes. In the event total pond water volume surpasses on site storage capacity, emergency interventions may be necessary.

Monitoring

To monitor the situation on an ongoing basis, Agrifos has developed a process to measure and record water levels. Water levels are measured in all stacks twice daily during daylight hours and moats are measured 4 times per day. Additionally, the gyp stacks are visually assessed daily for any breaches, leaks, seepage or structural failure.

Interventions

Treatment

Water may be treated in onsite treatment facility using established permitting already in place. There is concern about excess ammonia content for monthly average. Plan is to evaluate treating 200 gpm (288,000 gallons per day). Because this option would result in excess ammonia emissions, this is still under discussion. There is a potential for a temporary variance to allow release of this treated water into the Houston Ship Channel pending approval from TCEQ or Regional Response Team. Estimated timeline for variance consideration is Monday 9/10/2007.

Controlled Release

The danger of catastrophic failure, exist when there is a freeboard less than twelve inches and/or winds in excess of 30 mph. If this occurs, the only option to prevent the failure of the stack wall is to pump liquids from the pond to the surrounding moat. The material will be treated within the moat area, to increase the pH levels, to reduce the impact to the environment.

RESPONSE PLAN

Ongoing

On an ongoing basis, the gypsum stacks are monitored daily as outlined above. When the gypsum stack water levels approach the minimum freeboard (12"), water is drained from the top to the bottom (into the moat). If the moats reach full capacity – due either to plant shutdown, severe weather, inability to process excess water, etc. – the procedure for Catastrophic Failure (above) is initiated.

Catastrophic Failure

As per Emergency Preparedness Plan

- Person identifying problem dials 5555 or contacts security via radio to report problem.
- Security activates Emergency Siren System to call for Emergency (sounds Emergency Siren followed by instruction for all staff to report to designated rally points. See Map for rally points.)

  - Account for all staff based on In-Plant Report. Check with Security for anyone signed out on the Stack Log.
- EOC is established in Administration Building

Notifications

(The EOC call list from Emergency Preparedness Plan is attached as Appendix B)

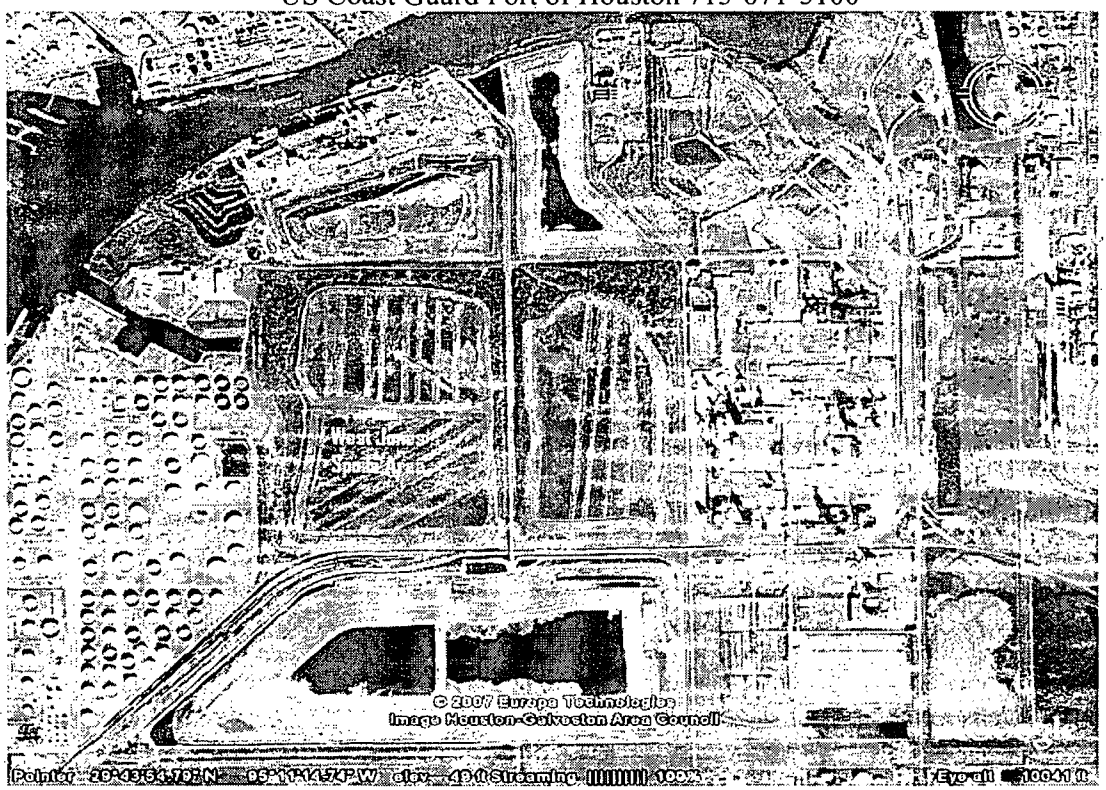
- Shift Supervisor
  - Dial 911
  - National Response Center 800-424-8802
  - Chemtell 800-832-8224
  - If event occurs outside of business hours, notify Agrifos Managers and Executives as listed in Emergency Preparedness Plan Section 21 Page 1.
- Notification of Neighboring Plants (May be handled by 911 – Confirm)
  - Air Products 713-477-6841
  - Pasadena Refining Systems (PRSI) 713-472-2461 (formerly Crown Central Petroleum)
  - Chevron Philips 713-475-3624
  - Kinder Morgan – Pasadena Terminal 713-473-9271
  - Megellan Midstream (Across Channel) 713-453-6301 (formerly Williams Energy)
  - Gulf Stream Marine Security 713-926-7611
  - Green Earth, LLC 713-920-1850
  - Steel & Pipe Supply Co. 713-472-5614 (formerly Bludworth)
  - Dynergy – Zone 1 713-450-7200
- Environmental Manager contacts:
  - LEPC (713) 473-7646
  - EPA Region VI (214) 665-6444
  - Harris County Pollution Control Dept. 713-920-2831
  - US Coast Guard (Spills) 800-424-8802
  - US Coast Guard Port of Houston 713-671-5100
  - Update CAER Hotline (713) 246-0301 Instructions in Emergency Preparedness Manual Section 13 Pages 4-7.

Evacuation

While risk to personnel in the immediate vicinity of the stack failure is great, the flow of pond water and gypsum slurry from a catastrophic failure would not be likely to inundate the main production facility at Agrifos. As such, no immediate evacuation of personnel would be necessary.

Controlled Release

- Controlled release will be considered once the freeboard is found to be less that 12" and/or winds are expected to be in excess of 30 mph. The Unified Command will be responsible for the decision to begin a controlled release.
- Notifications (Phone numbers for notifications are listed in the EOC Call List from Emergency Preparedness Plan attached as Appendix B)
    - Shift Manager Calls
        - Agrifos Managers and Executives according to Section 21, page 1.
        - Chemtell 800-832-8224
    - Environmental Manager contacts:
        - LEPC (713) 473-7646
        - EPA Region VI (214) 665-6444
        - Harris County Pollution Control Dept. 713-920-2831
        - US Coast Guard (Spills) 800-424-8802
        - US Coast Guard Port of Houston 713-671-5100



Rally points designated with yellow dots and numbers.

NEWS RELEASE #1

For Immediate Release
September 7, 2007
9:30 p.m.

Contact: Steve Pierce
Agrifos Fertilizer Inc.
(281) 920-5361

AGRIFOS STOPS RELEASE INTO COTTON PATCH BAYOU

(Pasadena, TX) --- Agrifos Fertilizer Inc. has stopped the release of a contaminated mixture of process water and rain water into Cotton Patch Bayou which flows into the Houston Ship Channel. The water will be pumped into an on-site storage pond prior to treatment at the plant's water treatment plant.

Agrifos was able to stop the release after forming a Unified Command organization at its Pasadena fertilizer plant and is working together with the U.S. Coast Guard, U.S. Environmental Protection Agency, Texas Commission on Environmental Quality, Texas Parks and Wildlife, and a team of environmental and release response specialists hired by Agrifos over the past three weeks.

The incident began August 16 when almost eight inches of heavy rains fell in a few hours over the Pasadena plant area. The heavy rainfall filled a containment wall around a gypsum storage pile resulting from fertilizer production at the Pasadena plant. The contaminated rain water overflowed into the nearby Cotton Patch Bayou. While inspecting the release, Agrifos discovered a leak at the base of the concrete containment wall on August 17.

Agrifos immediately notified the Texas Commission of Environmental Quality (TCEQ) about the release, used soda ash to help neutralize the low levels of phosphoric acid in the rain water, sand bagged around the wall breach, and built a coffer dam to successfully stop the leak on August 20th.

However, another four inches of rain fell over the Pasadena area on September 1 causing another overflow into Cotton Patch Bayou which Agrifos promptly reported to the TCEQ. If the wall had completely collapsed, between 25-35 million gallons of contaminated rain water could have flowed into the Houston Ship Channel.

-more-

To relieve pressure on the wall, the company initiated an emergency pumping operation to pump water from behind the containment wall out into Cotton Patch Bayou.

An Agrifos inspection of the barge slip where Cotton Patch Bayou empties into the Houston Ship Channel showed low pH readings of 2.0 to 2.2 were only detected at the discharge pipe a half-mile away from the Ship Channel. Samples taken late Friday afternoon showed normal pH readings in the Channel.

"We sincerely regret that the release caused any impact to the environment, but the emergency pumping operation successfully prevented what could have been a much bigger environmental incident," said Agrifos manager Steve Pierce. "Working together with state and federal agencies, we have been able to stop the release and bring this incident under control. We especially appreciate the assistance of the U.S. Coast Guard and the Texas Commission on Environmental Quality to help us resolve this incident."

Work has already begun to make permanent repairs to the containment wall and to implement safety measures to prevent the incident from reoccurring.

-end-

AGRIFOS FERTILIZER INC.
MATERIAL SAFETY DATA SHEET

********** I. PRODUCT IDENTIFICATION **********

POND WATER

SUPPLIER:
AGRIFOS FERTILIZER INC.
CHEMICAL NAMES AND SYNONYMS:
PHOSPHORIC ACID/WATER
USE OR DESCRIPTION:
CONTAMINATED WATER

24-HOUR EMERGENCY (CALL COLLECT):
(713) 920-5431
CHEM TREC:
(800) 424-9300
PRODUCT AND MSDS INFORMATION:
(713) 920-5331

********** II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES **********

APPEARANCE:	Clear Liquid	ODOR:	Odorless
		pH:	2.4
VISCOSITY AT 40 C. CS:	NA	POUR POINT F(C):	NA
VISCOSITY AT 100 C. CS:	NA	FLASH POINT F(C):	NA
BOILING POINT F(C):	NE	SOLUBILITY IN WATER:	Complete
MELTING POINT F(C):	NA	VAPOR PRESSURE –mmHg 20 C:	NE
RELATIVE DENSITY, 15/4 C:	NE	VOC	NE

NA = Not Applicable NE = Not Established D = Decomposes

FOR FURTHER INFORMATION, CONTACT YOUR MARKETING REPRESENTATIVE

********** III. POTENTIALLY HAZARDOUS INGREDIENTS **********

			EXPOSURE LIMITS				
			TWA		STEL		NOTE
	Wt.%	Source	ppm	mg/m3	ppm	mg/m3	
CONTAMINATED WATER	100%						
COMPONENTS OF MIXTURE							
PHOSPHORIC ACID							
(7664-38-2)	2%	Agrifos		1			
		OSHA		1		3	
		ACGIH		1		3	

NOTE: Limits shown for guidance only. Follow applicable regulations.

********** IV. HEALTH HAZARD DATA **********

---INCLUDES AGGRAVATED MEDICAL CONDITIONS, IF ESTABLISHED—

EFFECTS OF OVEREXPOSURE: Strong eye irritation. Strong skin irritation.

********** V. EMERGENCY AND FIRST AID PROCEDURES **********
---- FOR PRIMARY ROUTES OF ENTRY ----

EYE CONTACT: Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance.
SKIN CONTACT: Wash contact areas with soap and water. Remove contaminated clothing. Get medical assistance. Launder contaminated clothing before reuse.
INHALATION: *Remove from further exposure. If respiratory irritation, dizziness, nausea, or* unconsciousness occurs, seek immediate medical assistance and call a physician. If breathing has stopped, use mouth to mouth resuscitation.
INGESTION: *Do not induce vomiting. Give 1 to 2 glasses of water. Get medical assistance and call a* physician immediately. Do not induce vomiting or give anything by mouth to an unconscious person.

********** VI. FIRE AND EXPLOSION HAZARD DATA **********

EXTINGUISHING MEDIA: Not applicable.
SPECIAL FIRE FIGHTING PROCEDURES: This material will not burn; however, use standard chemical fire fighting procedures and consider the hazards of other involved materials. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.
SPECIAL PROTECTIVE EQUIPMENT: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors from hot material could form explosive mixtures with air.

Flash Point F(C): NA Flammable limits – LEL: NA UEL: NA

NFPA HAZARD ID: Health: 2, Flammability: 0, Reactivity: 0

********** VII. REACTIVITY DATA **********

STABILITY (Thermal, Light, etc.): Stable
CONDITIONS TO AVOID: Metals. Reaction of the material with metals can liberate flammable hydrogen gas.
INCOMPATIBILITY (Materials to Avoid): Metals. Bases.
HAZARDOUS DECOMPOSITION PRODUCTS: Phosphorus oxides.
HARDOUS POLYMERIZATION: Will not occur.

********** VIII. SPILL OR LEAK PROCEDURE **********

ENVIRONMENTAL IMPACT: Report spills as required to appropriate authorities. U. S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.
PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Personnel performing cleanup must use protective equipment. Absorb on fire retardant treated sawdust, diatomaceous earth, etc. Dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.
WASTE MANAGEMENT: Dispose of waste at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.

********** VIV. SPECIAL PROTECTION INFORMATION**********

VENTILATION: Use in well ventilated areas.
RESPIRATORY PROTECTION: Approved respiratory protective equipment must be used in high vapor or mist concentrations. No special requirements under ordinary conditions of use and with adequate ventilation.
EYE PROTECTION: Chemical type goggles should be worn.
SKIN PROTECTION: Protective clothing such as uniforms, coveralls or lab coats should be worn. Impervious gloves should be worn. Chemical resistant apron should be worn when handling bulk quantities.

********** X. SPECIAL PRECAUTIONS **********

HANDLING: Avoid all personal contact.
MATERIALS MUST BE LABELED AS FOLLOWS: Causes eye irritation. Causes skin irritation.

********** XI. TOXICOLOGICAL DATA**********

--- ACUTE TOXICOLOGY ---

ORAL TOXICITY (RATS): Practically non-toxic (LD50: greater than 2,000 mg/kg). Based on testing of similar products and/or the components.
DERMAL TOXICITY (RABBITS): Practically non-toxic (LD50: greater than 2,000 mg/kg). Based on testing of similar products and/or the components.
INHALATION TOXICITY (RATS): Not established.
EYE IRRITATION (RABBITS): Strong irritant. (Draize score: greater than 35 but 55 or less). Based on testing of similar products and/or the components.
SKIN IRRITATION (RABBITS): Strong irritant. (Primary Irritation Index: 5 or greater but less than 6). Based on testing of similar products and/or the components.

********** XII. REGULATORY INFORMATION**********

Governmental Inventory Status: All components comply with TSCA.

Transport Information: Please see Section XIV.

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined to be hazardous.

RCRA INFORMATION: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic leaching Procedure (TCLP). However, used product may be regulated.

U. S. Superfund Amendments and Reauthorization Act (SARA) Title III, this product contains no Extremely Hazardous Substances (EHS):

SARA (311/312) REPORTABLE HAZARD CATEGORIES:

ACUTE

This product contains the following SARA (313) Toxic Release Chemicals:

CHEMICAL NAME	CAS NUMBER	CONC.
PHOSPHORIC ACID (COMPONENT ANALYSIS)	7664-38-2	2.3%

The following product ingredients are cited on the lists below:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
PHOSPHORIC ACID (COMPONENT ANALYSIS)	7664-38-2	1, 10, 18, 19, 20, 21, 23, 24, 25, 26

--------REGULATORY LISTS SEARCHED--------

1 = ACGIH ALL	6 = IARC 1	11 = TSCA 4	17 = CA P65	22 = MI 293
2 = ACGIH A1	7 = IARC 2A	12 = TSCA 5a2	18 = CA RTK	23 = MN RTK
3 = ACGIH A2	8 = IARC 2B	13 = TSCA 5e	19 = FL RTK	24 = NJ RTK
4 = NTP CARC	9 = OSHA CARC	14 = TSCA 6	20 = IL RTK	25 = PA RTK
5 = NTP SUS	10 = OSHA Z	15 = TSCA 12b	21 = LA RTK	26 = RI RTK

Code Key: CARC = CARCINOGEN; SUS = SUSPECTED CARCINOGEN

NOTE: AGRIFOS PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

********** XIII. INGREDIENTS**********

INGREDIENT	PERCENT	CAS NUMBER
PHOSPHORIC ACID	2.3	7664-38-2
CONTAMINATED WATER	100.0	
OTHER INGREDIENTS		

********** XIV. TRANSPORT AND LABEL INFORMATION**********

USA DOT:

SHIPPING NAME:	Environmentally y Hazardous Substances, Liquid, n.o.s. (contains PHOSPHORIC ACID)
HAZARD CLASS & DIV:	9
ID NUMBER:	UN 3082
ERG NUMBER:	31
PACKING GROUP:	PG III
STCC:	NE
DANGEROUS WHEN WET:	No
POISON:	No

LABEL(S):	Class 9
PLACARD(S):	Class 9
PRODUCT RQ:	217391 lbs. (contains PHOSPHORIC ACID)
MARPOL III STATUS:	NA

IMO:

SHIPPING NAME:	Not Standard Practice
HAZARD CLASS & DIV:	NA
ID NUMBER:	
PACKING GROUP:	NA
LABEL(S):	NA
MARPOL III STATUS:	NA

ICAO/IATA:

SHIPPING NAME:	Not Standard Practice
HAZARD CLASS & DIV:	NA
SUBSIDIARY RISK:	NA
ID NUMBER:	
PACKING GROUP:	NA
LABEL(S):	NA

REVISION DATE: 01/01/2007

INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILILTY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFEE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

Prepared by: Agrifos Fertilizer Inc.
P. O. Box 3447
Pasadena, TX 77501

MATERIAL SAFETY DATA SHEET
Industrial Ground Gypsum

MSDS # 52-510-011
Page 1 of 8

United States Gypsum Company
125 South Franklin Street
Chicago, Illinois 60680-4124
A Subsidiary of USG Corporation

Product Safety: 1 (800) 507-8899
www.usg.com
Version Date: October 8, 2003
Version: 4

SECTION 1
CHEMICAL PRODUCT AND IDENTIFICATION

PRODUCT: Industrial Ground Gypsum
CHEMICAL FAMILY: Calcium Sulfate Dihydrate ($CaSO_4 \cdot 2H_2O$)

SECTION 2
COMPOSITION, INFORMATION ON INGREDIENTS

MATERIAL	WT%	TLV (mg/m^3)	PEL(mg/m^3)	CAS NUMBER
Gypsum ($CaSO_4 \cdot 2H_2O$)	100	10	15(T) / 5(R)	13397-24-5
Crystalline Silica	<1	0.05(R)	0.1(R)	14808-60-7

(T) – Total (R) – Respirable (NE) – Not Established mmpfc - million particles per cubic foot of air
Respirable crystalline silica: IARC: Group 1 carcinogen, NTP: Known human carcinogen. The weight percent for silica represents total quartz and not the respirable fraction. Testing of dust from USG gypsum powders has not detected respirable crystalline silica.

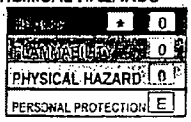
FDA Food and Drug Administration [CFR Title 21, v.3, sec 184.1230] – Calcium Sulfate is Generally Recognized as Safe (GRAS).

All ingredients of this product are included in the U.S. Environmental Protection Agency's Toxic Substances Control Act Chemical Substance Inventory. All components of this product are included in the Canadian Domestic Substances List (DSL).

SECTION 3
HAZARD IDENTIFICATION

INFORMATION FOR HANDLING AND IDENTIFICATION OF CHEMICAL HAZARDS

NFPA Ratings:		HMIS Ratings:	
Health:	0	Health:	*0
Fire:	0	Fire:	0
Reactivity:	0	Reactivity:	0



0 = Minimal Hazard
1 = Slight Hazard
2 = Moderate Hazard
3 = Serious Hazard
4 = Severe Hazard

Personal Protection. Use eye and skin protection. Use NIOSH/MSHA-approved respiratory protection when necessary.
*Respirable crystalline silica can cause lung disease and/or cancer. E- Safety glasses, gloves and dust respirator

EMERGENCY OVERVIEW: This product is not expected to produce any unusual hazards during normal use. Exposure to high dust levels may irritate the skin, eyes, nose, throat, or upper respiratory tract.

POTENTIAL HEALTH EFFECTS

ACUTE:
Eyes: Airborne dust or direct contact can cause mechanical irritation of eyes. If burning, redness, itching, pain or other symptoms persist or develop, consult physician.
Skin: Direct, prolonged or repeated contact with the skin may cause irritation.

SECTION 3 HAZARD IDENTIFICATION (continued):

POTENTIAL HEALTH EFFECTS

ACUTE (continued):

Inhalation: Dust exposures generated during the handling of the product may irritate eyes, skin, nose, throat, and upper respiratory tract. Persons subjected to large amounts of this dust will be forced to leave area because of nuisance conditions such as coughing, sneezing and nasal irritation. Labored breathing may occur after excessive inhalation. If respiratory symptoms persist, consult physician.

Ingestion: If ingested may cause temporary irritation to the gastrointestinal tract, especially the stomach. No known effects.

CHRONIC:

Eyes: None known.

Skin: None known.

Ingestion: No known effects.

Inhalation: Testing of dust from USG gypsum powders has not detected respirable crystalline silica. Exposures to respirable crystalline silica are not expected during the normal use of this product; however, actual levels must be determined by workplace hygiene testing.

Prolonged and repeated exposure to airborne free respirable crystalline silica can result in lung disease (i.e., silicosis) and/or lung cancer. The development of silicosis may increase the risks of additional health effects. The risk of developing silicosis is dependent upon the exposure intensity and duration.

TARGET ORGANS: Eyes, skin and respiratory system.

PRIMARY ROUTES OF ENTRY: Inhalation, eyes and skin contact.

SECTION 4 FIRST AID MEASURES

FIRST AID PROCEDURES

Eyes: In case of contact, do not rub or scratch your eyes. Flush thoroughly with water for 15 minutes to remove particles. If irritation persists, consult physician.

Skin: Wash with mild soap and water. A commercially available hand lotion may be used to treat dry skin areas. If skin has become cracked, take appropriate action to prevent infection and promote healing. If irritation persists, consult physician.

Inhalation: Remove to fresh air. Leave the area of dust exposure and remain away until coughing and other symptoms subside. Other measures are usually not necessary, however if conditions warrant, contact physician.

Ingestion: This product is not intended to be ingested or eaten. No harmful effects expected. No specific recommendations. If gastric disturbance occurs, call physician.

MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED: Pre-existing upper respiratory and lung diseases such as, but not limited to, bronchitis, emphysema and asthma. Pre-existing skin diseases such as, but not limited to, rashes and dermatitis.

SECTION 5 FIRE FIGHTING MEASURES

General Fire Hazards:	Not expected to burn.
Extinguishing Media:	Water or use extinguishing media appropriate for surrounding fire.
Special Fire Fighting Procedures:	Wear appropriate personal protective equipment (See section 8).
Unusual Fire & Explosion Hazards:	None
Hazardous Combustion Products:	Above 1450° C - decomposes to calcium oxide (CaO) and sulfur dioxide (SO_2)

SECTION 5 FIRE FIGHTING MEASURES (continued)

Flash Point:	None Known	**Auto Ignition:**	Not Applicable
Method Used:	Not Applicable	**Flammability Classification:**	Not Applicable
Upper Flammable Limit (UFL):	Not Applicable		
Lower Flammable Limit (LFL):	Not Applicable	**Rate of Burning:**	Not Applicable

SECTION 6 ACCIDENTAL RELEASE MEASURES

CONTAINMENT:

No special precautions. Wear appropriate personal protection (See Section 8).

CLEAN-UP:

Use normal clean up procedures. Wear appropriate protective equipment. Ventilate area. If dry, shovel or sweep up material from spillage and place collected material into a container for recovery or waste disposal. Avoid dust generation. Avoid inhalation of dust and contact with eyes and skin. Maintain proper ventilation. If vacuum is used to collect dust, use an industrial vacuum cleaner with a high efficiency air filter. If sweeping is necessary, use dust suppressant. Do not use compressed air for clean up. These procedures will help minimize potential exposures. If washed down, may plug drains.

DISPOSAL:

Follow all local, state, provincial and federal regulations. Never discharge large releases directly into sewers or surface waters. Trace amounts of residue can be flushed to a drain, using plenty of water.

SECTION 7 HANDLING AND STORAGE

HANDLING:

Minimize dust generation and accumulation. Avoid breathing dust. Wear the appropriate respiratory protection against dust in poorly ventilated areas and if TLV is exceeded (see Sections 2 and 8). Avoid dust contact with eyes. Wear the appropriate eye protection against dust (See Section 8).

Use good safety and industrial hygiene practices.

STORAGE:

Store at room temperature in a dry location.

Keep containers closed when not in use.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

Provide ventilation sufficient to control airborne dust levels especially respirable crystalline silica.

If user operations generate airborne dust, use ventilation to keep dust concentrations below permissible exposure limits (See Section 2).

Where general ventilation is inadequate, use process enclosures, local exhaust ventilation, or other engineering controls to control dust levels below permissible exposure limits (see Section 2). If engineering controls are not possible, wear a properly fitted NIOSH/MSHA-approved particulate respirator.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION (continued)

RESPIRATORY PROTECTION:
Wear a NIOSH/MSHA-approved respirator equipped with particulate cartridges when dusty in poorly ventilated areas, and if TLV is exceeded. A respiratory program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

OTHER PERSONAL PROTECTIVE EQUIPMENT:
Eye/Face: Wear eye protection (safety glasses or goggles) to avoid particulate irritation of the eye.
Skin: Gloves or protective clothing are usually not necessary but may be desirable in specific work situations. For brief contact, no precautions other than clean body-covering clothing should be needed. Wear gloves and protective clothing to prevent repeated or prolonged skin contact. Barrier creams or skin lotion may be applied to face, neck, wrist and hands when skin is exposed to help prevent drying of skin.

General: Selection of Personal Protective Equipment will depend on environmental working conditions and operations

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White to off white	**Viscosity**	Not Applicable
Physical State	Solid (powder)	**Solubility (H2O)**	~ 0.21 g/100 g solution
Odor	Low to no odor	**Boiling Point**	Not Applicable
pH @ 25 ° C	~7	**Melting Point**	Not Applicable
Particle Size	Varies	**Softening Point**	Not Applicable
Molecular Weight	~172 g/mole	**Freezing Point**	Not Applicable
Bulk Density	~ 45-150 lb/ft^3	**Vapor Density (Air = 1)**	Not Applicable
Specific Gravity (H_20 = 1)	2.3-2.5	**Vapor Pressure (mm Hg)**	Not Applicable
Percent Volatile	Zero	**Evaporation Rate (BuAc = 1)**	Not Applicable
VOC Content	Zero		

SECTION 10 CHEMICAL STABILITY AND REACTIVITY

STABILITY:	Stable.
CONDITIONS TO AVOID:	Contact with incompatibles.
INCOMPATIBILITY:	None known.
HAZARDOUS POLYMERIZATION:	Will not occur.
HAZARDOUS DECOMPOSITION:	Above 1450° C - decomposes to calcium oxide (CaO) and sulfur dioxide (SO_2

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE EFFECTS:
Direct contact may cause eye, skin and/or respiratory irritation.
LD_{50}: Not Available for product. LC_{50}: Not Available for product.

SECTION 11 TOXICOLOGICAL INFORMATION (continued)

CHRONIC EFFECTS / CARCINOGENICITY:

Crystalline silica: Testing of dust from USG gypsum powders has not detected respirable crystalline silica. Exposures to respirable crystalline silica are not expected during the normal use of this product; however, actual levels must be determined by workplace hygiene testing.

Prolonged and repeated exposure to airborne free respirable crystalline silica can result in lung disease (i.e., silicosis) and/or lung cancer. The development of silicosis may increase the risks of additional health effects. The risk of developing silicosis is dependent upon the exposure intensity and duration.

In June, 1997, IARC classified crystalline silica (quartz and cristobalite) as a human carcinogen. In making the overall evaluation, the IARC Working Group noted that carcinogenicity in humans was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs.

IARC states that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1).

SECTION 12 ECOLOGICAL INFORMATION

ENVIRONMENTAL TOXICITY: This product has no known adverse effect on the ecology. A large discharge directly into waterways would not be expected to kill aquatic life.

Ecotoxicity value: Not determined.

SECTION 13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:

Dispose of material in accordance with Federal, State, Provincial, and Local regulations. Consult with environmental regulatory agencies for guidance on acceptable disposal practices. Never discharge directly into sewers or surface waters.

SECTION 14 TRANSPORT INFORMATION

U.S. DOT INFORMATION: Not a hazardous material per DOT shipping requirements. Not classified or regulated.

Shipping Name	Same as product name.
Hazard Class:	Not classified
UN/NA #:	None. Not classified.
Packing Group:	None.
Label (s) Required:	Not applicable.
GGVSee/MDG-Code:	Not classified.
ICAO/IATA-DGR:	Not applicable.
RID/ADR:	None
ADNR:	None

MATERIAL SAFETY DATA SHEET
Industrial Ground Gypsum

SECTION 15
REGULATORY INFORMATION

UNITED STATES REGULATIONS

All ingredients of this product are included in the U.S. Environmental Protection Agency's Toxic Substances Control Act Chemical Substance Inventory.

MATERIAL	WT%	302	304	313	CERCLA	CAA Sec. 112	RCRA Code
Gypsum ($CaSO_4 \cdot 2H_2O$)	100	NL	NL	NL	NL	NL	NL
Crystalline Silica	<1	NL	NL	NL	NL	NL	NL

Key: *NL = Not Listed*
SARA Title III Section 302 (EPCRA) Extremely Hazardous Substances: Threshold Planning Quantity (TPQ)
SARA Title III Section 304 (EPCRA) Extremely Hazardous Substances: Reportable Quantity (RQ)
SARA Title III Section 313 (EPCRA) Toxic Chemicals: X= Subject to reporting under section 313
CERCLA Hazardous Substances: Reportable Quantity (RQ)
CAA Section 112 (r) Regulated Chemicals for Accidental Release Prevention: Threshold Quantities(TQ)
RCRA Hazardous Waste: RCRA hazardous waste code

FDA Food and Drug Administration [CFR Title 21, v.3, sec 184.1230] – Calcium Sulfate is Generally Recognized as Safe (GRAS).

CANADIAN REGULATIONS

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. All components of this product are included in the Canadian Domestic Substances List (DSL).

MATERIAL	WT%	IDL Item #	WHMIS Classification:
Gypsum ($CaSO_4 \cdot 2H_2O$)	100	Not Listed	Not Listed
Crystalline Silica	<1	1406	D2A

IDL Item # : Canadian Hazardous Products Act – Ingredient Disclosure List Item #
WHMIS Classification: Workplace Hazardous Material Information System

CARCINOGENICITY CLASSIFICATION OF INGREDIENT(S)
All substances listed are associated with the nature of the raw materials used in the manufacture of this product and are not independent components of the product formulation. All substances, if present, are at levels well below regulatory limits. See Section 11 : Toxicology Information for detailed information

MATERIAL	IARC	NTP	ACGIH	CAL- 65
Respirable Crystalline Silica	1	1	A2	Listed

IARC – International Agency for Research on Cancer (World Health Organization)
1- Carcinogenic to humans
2A – Probably carcinogenic to humans
2B – Possibly carcinogenic to humans
3 - Not classifiable as a carcinogen
4 – Probably not a carcinogen

SECTION 15 REGULATORY INFORMATION (continued)

NTP – National Toxicology Program (Health and Human Services Dept., Public Health Service, NIH/NIEHS)
1- Known to be carcinogen
2- Anticipated to be carcinogens

ACGIH – American Conference of Governmental Industrial Hygienists
A1 – Confirmed human carcinogen
A2 – Suspected human carcinogen
A3 – Animal carcinogen
A4 - Not classifiable as a carcinogen
A5 – Not suspected as a human carcinogen

CAL-65 – California Proposition 65 "Chemicals known to the State of California to Cause Cancer"

SECTION 16 OTHER INFORMATION

Label Information
ΔWARNING!
Dust created from product may cause eye, skin, nose, throat or upper respiratory irritation. Avoid inhalation of dust and eye contact. Use in a well-ventilated area. Wear a NIOSH/MSHA-approved respirator when dusty. Use proper ventilation to reduce dust exposure. Wear eye protection. If eye contact occurs, flush thoroughly with water for 15 minutes. If irritation persists, call physician. Wash thoroughly with soap and water after use. Do not ingest. If ingested, call physician.
Product safety information: (800) 507-8899 or www.usg.com
KEEP OUT OF REACH OF CHILDREN.

Key/Legend

TLV	Threshold Limit Value
PEL	Permissible Exposure Limit
CAS	Chemical Abstracts Service (Registry Number)
NIOSH	National Institute for Occupational Safety and Health
MSHA	Mine Safety and Health Administration
OSHA	Occupational Health and Safety Administration
ACGIH	American Conference of Governmental Industrial Hygienists
IARC	International Agency for Research on Cancer
DOT	United States Department of Transportation
EPA	United States Environmental Protection Agency
NFPA	National Fire Protection Association
HMIS	Hazardous Materials Identification System
PPE	Personal Protection Equipment
TSCA	Toxic Substances Control Act
DSL	Canadian Domestic Substances List
NDSL	Canadian Non-Domestic Substances List
SARA	Superfund Amendments and Reauthorization Act of 1986
RCRA	Resource Conservation and Recovery Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
UN/NA#	United Nations/North America number
CFR	Code of Federal Regulations
WHMIS	Workplace Hazardous Material Information System

MATERIAL SAFETY DATA SHEET
Industrial Ground Gypsum

SECTION 16 OTHER INFORMATION (continued)

Prepared by:
Product Safety
USG Corporation
125 South Franklin St.
Chicago, Illinois 60606

END

Ardaman & Associates, Inc.
MEMORANDUM

TO: Tim Cotton, Agrifos Fertilizer Inc.

FROM: Nadim F. Fuleihan, Sc.D., P.E

DATE: September 10, 2007

SUBJECT: Emergency Situation Requiring Immediate Action, Agrifos Phosphogupsum Stack System, Pasadena, Texas

FILE NO: 07-122

As requested, I and my associate, Rob Werner, visited the site today to inspect firsthand the emergency situation that developed recently at the Agrifos phosphogypsum stack system in Pasadena Texas, and I participated in a meeting this afternoon with members of your Houston staff, other consultants, and representatives from the TCEQ, EPA, NOAA and Coast Guard as well as Exxon-Mobil and Terra. This memorandum summarizes key points that I made during the meeting and, in particular, the urgent need to remove process water from the system in a controlled manner in order to minimize the risk of subjecting the area to an uncontrolled catastrophic spill of much greater magnitude.

As a result of recent extreme rainfall events, the concrete wall surrounding the moat was reportedly overtopped on two occasions and one section of wall was subjected to uplifting of its foundation resulting in another release of process water from the system through the bayou into the Houston Ship Channel. During my inspection on September 10, 2007, the process water in the moat around the South Stack was essentially within inches of the rim of the wall at the depressed overflow section of the wall, and the gypsum stack was essentially full to capacity, with only about one foot of freeboard remaining in one of the compartments and about 18 inches of minimum freeboard remaining in the other compartment where the dike had recently been raised. Moreover, the North Stack (Stack No. 4) was also essentially full with about one foot of freeboard remaining in both the compartment atop the stack and the surge pond at the toe of the stack. In my professional opinion, this situation represents an extreme emergency requiring immediate action for the following reasons:

- One foot of freeboard on top of the stack is the absolute minimum that can be tolerated even under the most extreme emergency conditions because any additional rainfall on the stack or any significant sustained wind will likely cause overtopping and erosion of the crest road, potentially leading to an uncontrolled failure and a massive spill from a great height, with correspondingly high kinetic energy. The stack should normally be operated with 3.5 feet of freeboard, and the water level should only be allowed to surge to within one foot of the crest during extreme emergency water conditions and for a very short period of time because the risk of failure is high when the design freeboard is compromised as in the present situation.
- With only one foot of freeboard on top of the South Stack, the rim-ditches atop the stack in one of two compartments are submerged below water and can no longer be effectively used to quickly raise the perimeter gypsum dikes, thus aggravating an already critical condition over time. Moreover, the extent of any gypsum beaches

inboard of the rim-ditch is minimal, further complicating dike raising efforts with the current high water levels.

- The moat is essentially full almost to the overflow level, and the watershed of the moat encompasses a much larger stack slope area, so any small quantity of rainfall is likely to cause an uncontrolled release of process water from the relatively narrow moat, potentially undercutting the wall footing at the overflow location.
- Whereas the concrete wall surrounding the moat may be able to accommodate temporary surges in water level and the wall is structurally sound, it does not incorporate cut-off features that would control piping under sustained high water conditions. Hence, if the water level is not lowered in short order, there is a high likelihood that internal erosion might progress at potentially more than one location leading to undercutting and possibly overturning of some wall segments with associated uncontrolled releases of process water.
- The critical condition described above is further aggravated by the fact that we are still in the midst of the rainy season and potentially in an active hurricane season, and every inch of rainfall adds about 9 Million Gallons of water to the system. With an overall watershed to ponded area ratio (i.e., surge ratio) on the order of 3, the average water level in the system is expected to surge by about 3 inches in response to each inch of precipitation. For the moat surrounding the South Stack, the surge ratio is as high as 10, and, hence overtopping of the moat is quite likely under current conditions. Unless a significant quantity of process water is consumed or discharged in short order, the emergency situation is likely to be sustained for at least several months, through the hurricane season and possibly beyond, with continued threats of imminent accidental spill(s).
- In order to assist in alleviating this extreme emergency situation, it is recommended that Agrifos continue to operate the plant in a manner that optimizes process heat evaporative losses, and at the same time inform the regulatory agencies of the urgent need to remove process water from the system in a controlled manner in order to minimize the risk of an accidental spill, restore safe phosphogypsum stack system operating procedures (3.5-foot freeboards), and provide conditions suitable for raising the gypsum dikes.

To expedite removal of process water under such emergency conditions, it is recommended that Agrifos seek approval to: (i) discharge process water at the highest sustainable rate after adjusting the pH to above 3.5 (and preferably to about 4.0) by the controlled addition of soda ash or caustic; (ii) concurrently discharge lime treated process water routed through the Waste Water Treatment Plant with a pH in the range of 4.0 to 7.0 as long as the emergency conditions prevail; and (iii) explore any other possible means of consumption or water storage for potential implementation in the intermediate (as opposed to immediate) term.

Mr. Stewart,

I have put the bullet points at the bottom of this page.

If you take pond water and treat it to a pH of about 4 with Lime, you will lower the F in the water from 8600 ppm to about 90 ppm; more importantly, the Fluoride is fixed as calcium fluoride (CaF2) and will not be soluble in water. The solids will settle to about 30% by weight and can be put directly onto the gyp stack without comprimising its integrity.

At a pH of 4 the P2O5 in the water will be lowered from 2.08% to about 1%. The ammonia in solution will not be touched. At a pH of 5.5, you will still have about 90 ppm F in the water but only 0.45% P2O5 in solution.

The lime consumption should be used to eliminate the F first and therefore I would go to a pH of 4. This will maximize the amount of water that will be treated.

If the pH 4 solids are removed, as you correctly stated, you now have a very weak fertilizer solution. This water can be sprayed on the land. Even if the P2O5 in the water is too high for the current plants and they die, because you removed the Fluoride, by next year those plants will be back. It is sort of like putting fresh dung on a plant, the plant may die, however by next year they will be back and healthier than ever. Most of the Phosphates should react with metals in the soil and be fixed.

- **TREAT the POND WATER with LIME TO AT LEAST 4.0 pH, 5.0 IS BETTER**
- **SEPARATE THE SOLIDS AT pH 4-5 and SEND THEM TO THE GYP STACK**
- **SPRAY THE CLARIFIED WATER ON PLANTS**

The underflow solids will only take up about 5-8% of the original volume of the water. It will only displace about 1 million gallons of water if put back in the pond or the equivalent volume in thw Gyp Stack.

I hope that this helps

Cotton Patch Bayou Release '07
Randy Anzalone report
September 11, 2007 1430

Transportation:
Contacted Jay Simmons 0815 today of Lake Mary Marine 225-405-6954. Fax 225-767-8700.
Reference: barges located in New Orleans, LA
2 ea. 10,000 bbl barges
2 ea. 20,000 bbl barges

Reference: barges located at Houston, TX
1 ea. 10,000 bbl barge
2 ea. 20,000 bbl barges
Discussion: Requested contracts to secure barges be forwarded to Steve Pierce, Manager Supply and Business Development, Agrifos, 713-920-5361 fax 713-920-5332. Spoke with Steve regarding contracts and he informed he would handle contracts.

Disposal Options:
Contacted Renee Butler, Univar, 713-412-4634. Fax 713-641-5423.
Reference: samples and waste profile.
Discussion: Renee requested we provide (5) one quart samples of 2 pH fertilizer material. Contacted R. Keith Darnell 281-923-2064 regarding disposal samples. Keith will provide samples. Spoke with Renee 1447 she will pick up samples and MSDS Wednesday morning, 9-12-07.

Contacted Vicky, Liquid Environmental 713-671-4800 at 0841 today. Awaiting response.

Received call from Matt Allen, Texas Environmental Quality that if we would order a vacuum truck to begin shipping to contact Shane Miller at Texas Molecular that arrangements had been made to accept our profile. Robert Stewart was contacted and vacuum truck ordered.

Contacted Shane Wilson, Texas Molecular 713-647-1995 at 1233 today. Shane is emailing Brian Graves, EPA, waste profile. Shane stated permitted to discharge 500 gal/min. but were not able to dispose at their permitted volume. Shane will give particulars to Brian Graves of EPA.

Contacted Jay Simmons 1445 today, Lake Mary Marine stated owner not willing to lease us barges due to nature of product. Wants to know if we can treat waste to neutralize. Will follow up with them as soon as possible.

Tuesday, September 11, 2007 1648 Texas Molecular (Debbie Payne) received Agrifos product profile and MSDS. Will contact Roger Johnson for additional information. Sample provided for Texas Molecular's evaluation.

Tuesday, September 11, 2007 1845 No approval from Texas Molecular received MSDS and Profile to Texas Molecular. Due to not being able to receive approval of waste profile from Texas Molecular, tank truck loaded and ready to go was ordered to be unloaded and washed out to prevent potential unwanted release.

Wednesday, September 12, 2007 0950 Notified Agrifos has made call to pump from South Stack to moat in order to prepare for potential tropical storm impact (possibly 15" of rain).

Wednesday, September 12, 2007 1000 Kelly Wilson with Agrifos. Agrifos made the determination that they could only gain 3" or less in a 24 hour period. As a result of the tropical forecast of storm with high winds plus 15" to 45" of rain. I was determined that additional pumping was needed to protect the stack. This information was told to Chief Tiliman, USCG Houston, at 1015 today. Pump sourcing began immediately.

Wednesday, September 12, 2007 1225 Spoke to CPO Tilimon, IAP given to EPA and TCEQ for signature. GST pumps not possible at this time, continue sourcing own pumps.

Wednesday, September 12, 2007 1225 PO Williams reports liquids came over moat @ culvert by railroad tracks.

Wednesday, September 12, 2007 1300 Delivered letter drafted by Agrifos to Coast Guard Tilimon for Captain Diehl.

Agrifos Fertilizer Inc.
Process Water Balance - Levels Changes in Ponds and Moats

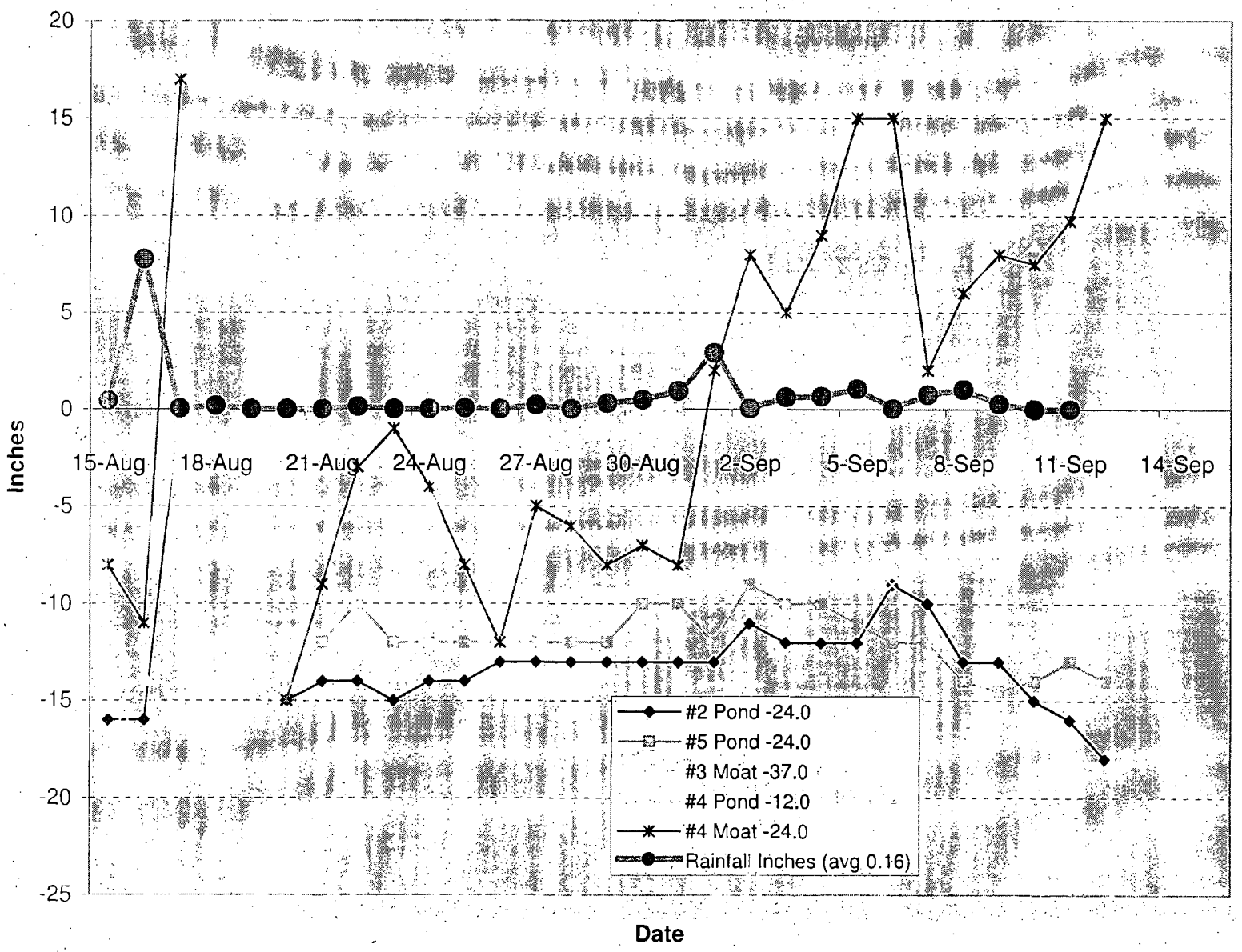
Date	Level in inches							Rainfall	Total	Addition of Rainfall Water to (million gallons)					
	#1 North	#1 South	#2 Pond	#5 Pond	#3 Moat	#4 Pond	#4 Moat	inches	MM gals	Plant	#2 Pond	#5 Pond	#3 Moat	#4 Pond	#4 Moat
								1.0	*10.6*	*2.6*	*1.2*	*0.7*	*4.7*	*0.4*	*0.9*
Desired (inch)	*-36*	*-36*	*-24.0*	*-24.0*	*-37.0*	*-12.0*	*-24.0*	*0.16*	1.7	0.4	0.2	0.1	0.8	0.1	0.1
Full level (inch)	*-20*	*-20*	*-12.0*	*-12.0*	*9.75*	*0.0*	*17.0*								
Area (acres)	*0.5*	*4.5*	*44.0*	*26.0*	*17.5*	*15.0*	*4.2*		*389.0*	*97.0*	*44.0*	*26.0*	*174.0*	*15.0*	*33.0*
9/15/2007															
9/14/2007															
9/13/2007															
9/12/2007	-58	-47	-18	-14	8.25	-11	15.00								
9/11/2007	-47	-61	-16	-13	6.50	-3	9.75	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
9/10/2007	-44	-50	-15	-14	8.50	-2.5	7.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9/9/2007	-58	-47	-13	-14.5	7.00	-4	8.00	0.3	2.9	0.7	0.3	0.2	1.3	0.1	0.2
9/8/2007	-39	-48	-13	-14	4.00	-5	6.00	1.0	10.8	2.7	1.2	0.7	4.8	0.4	0.9
9/7/2007	-52	-45	-10	-12	4.00	-5	2.00	0.8	7.9	2.0	0.9	0.5	3.5	0.3	0.7
9/6/2007	-47	-45	-9	-12	10.00	-9	15.00	0.0	0.3	0.1	0.0	0.0	0.1	0.0	0.0
9/5/2007	-52	-45	-12	-11	6.50	-6	15.00	1.1	11.2	2.8	1.3	0.7	5.0	0.4	0.9
9/4/2007			-12	-10	8.50	-3	9.00	0.7	7.1	1.8	0.8	0.5	3.2	0.3	0.6
9/3/2007			-12	-10	9.00	0	5.00	0.6	6.6	1.6	0.7	0.4	2.9	0.3	0.6
9/2/2007			-11	-9	10.00	0	8.00	0.0	0.3	0.1	0.0	0.0	0.1	0.0	0.0
9/1/2007			-13	-12	3.00	-4	2.00	2.9	30.8	7.7	3.5	2.1	13.8	1.2	2.6

Agrifos Fertilizer Inc.

Process Water Balance - Levels Changes in Ponds and Moats

Date	Level in inches							Rainfall	Total	Addition of Rainfall Water to (million gallons)					
	#1 North	#1 South	#2 Pond	#5 Pond	#3 Moat	#4 Pond	#4 Moat	inches	MM gals	Plant	#2 Pond	#5 Pond	#3 Moat	#4 Pond	#4 Moat
								1.0	*10.6*	*2.6*	*1.2*	*0.7*	*4.7*	*0.4*	*0.9*
Desired (inch)	*-36*	*-36*	*-24.0*	*-24.0*	*-37.0*	*-12.0*	*-24.0*	*0.16*	1.7	0.4	0.2	0.1	0.8	0.1	0.1
Full level (inch)	*-20*	*-20*	*-12.0*	*-12.0*	*9.75*	*0.0*	*17.0*								
Area (acres)	*0.5*	*4.5*	*44.0*	*26.0*	*17.5*	*15.0*	*4.2*		*389.0*	*97.0*	*44.0*	*26.0*	*174.0*	*15.0*	*33.0*
8/31/2007			-13	-10	0.00	-2	-8.00	0.9	9.9	2.5	1.1	0.7	4.4	0.4	0.8
8/30/2007			-13	-10	0.00	-3	-7.00	0.5	5.1	1.3	0.6	0.3	2.3	0.2	0.4
8/29/2007			-13	-12	0.00	-5	-8.00	0.3	3.3	0.8	0.4	0.2	1.5	0.1	0.3
8/28/2007			-13	-12	0.00	-5	-6.00	0.0	0.2	0.1	0.0	0.0	0.1	0.0	0.0
8/27/2007			-13	-12	0.00	-6	-5.00	0.2	2.2	0.6	0.3	0.1	1.0	0.1	0.2
8/26/2007			-13	-12	1.00	-4	-12.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/25/2007			-14	-12	1.00	-5	-8.00	0.0	0.4	0.1	0.0	0.0	0.2	0.0	0.0
8/24/2007			-14	-12	1.00	-6	-4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/23/2007			-15	-12	1.00	-6	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/22/2007			-14	-10	-1.00	-6	-3.00	0.1	1.4	0.3	0.2	0.1	0.6	0.1	0.1
8/21/2007			-14	-12	-1.00	-4	-9.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/20/2007			-15	-14	4.00	-3	-15.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/19/2007								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/18/2007								0.2	1.9	0.5	0.2	0.1	0.9	0.1	0.2
8/17/2007			0	0	0.00	0	17.00	0.0	0.3	0.1	0.0	0.0	0.1	0.0	0.0
8/16/2007			-16	-14	-20.00	-3	-11.00	7.8	82.2	20.5	9.3	5.5	36.8	3.2	7.0
8/15/2007			-16	-17	-11.00	-4	-8.00	0.4	4.7	1.2	0.5	0.3	2.1	0.2	0.4
Total Rainfall for Month															
Aug-07								11.6	123.0	30.7	13.9	8.2	55.1	4.7	10.4
Jul-07								12.7	134.5	33.5	15.2	9.0	60.2	5.2	11.4
Jun-07								7.5	79.5	19.8	9.0	5.3	35.6	3.1	6.7
May-07								13.4	141.4	35.2	16.0	9.4	63.3	5.5	12.0
Apr-07								4.8	50.6	12.6	5.7	3.4	22.7	2.0	4.3
Mar-07								7.4	77.8	19.4	8.8	5.2	34.8	3.0	6.6
Feb-07								2.0	21.1	5.3	2.4	1.4	9.5	0.8	1.8
Jan-07								7.4	77.8	19.4	8.8	5.2	34.8	3.0	6.6

Process Water - Level in Ponds and Moats



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Agrifos Fertilizer Inc.
Process Water Balance - Calculated Volume Changes

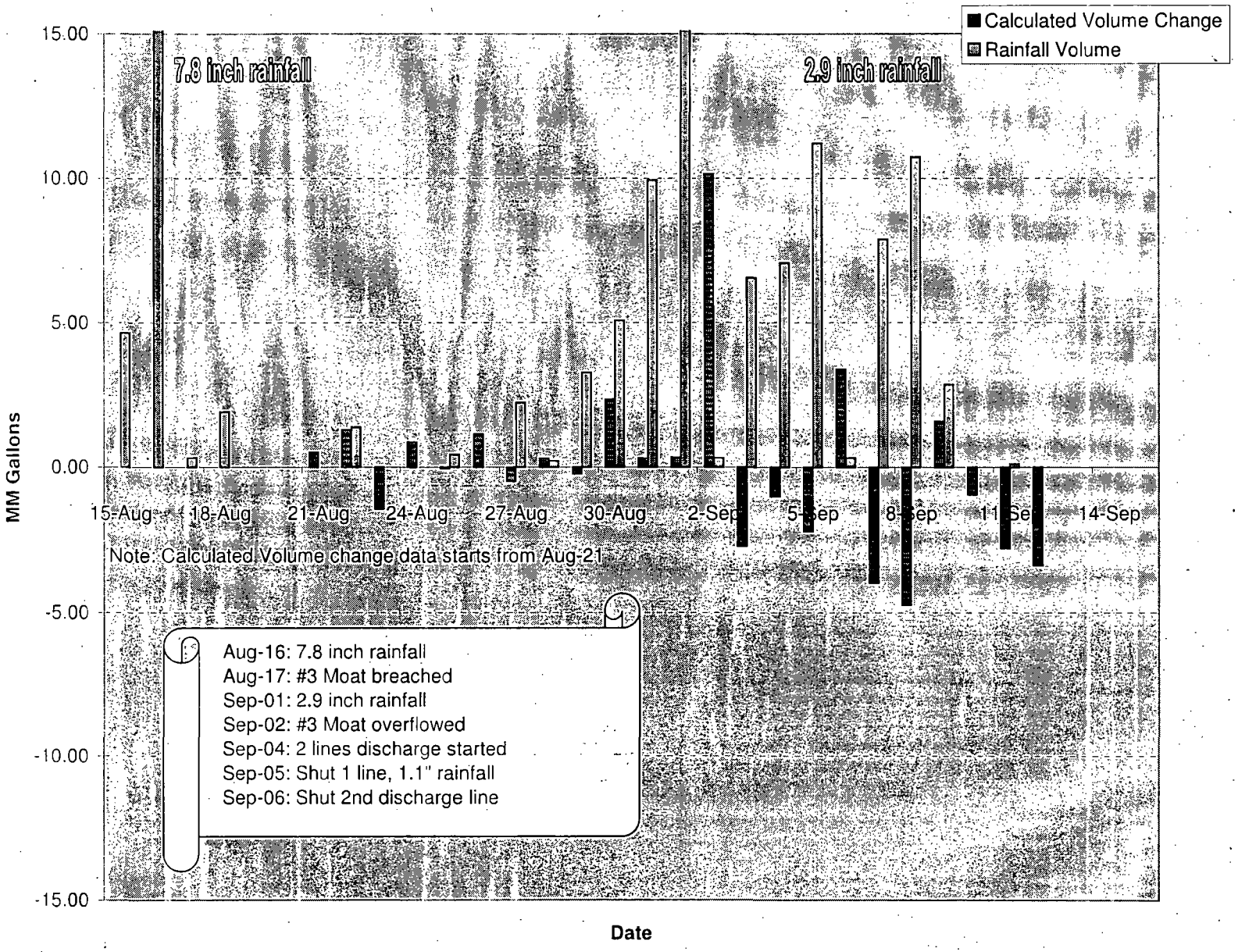
Date	Change in Volume (MM gals)							Total	Rainfall	Total	Comments
	#1 North	#1 South	#2 Pond	#5 Pond	#3 Moat	#4 Pond	#4 Moat	vol change	inches	MM gals	
Desired level (inch)	-36.0	-36.0	-24.0	-24.0	-37.0	-12.0	-24.0		*0.16*	1.7	Yearly rainfall average = 60 inches
Area (acres)	0.5	4.5	44.0	26.0	17.5	15.0	4.2			389.0	Total rainfall water collected acreage = 389
Cap before Discharge	0.5	3.3	7.2	1.4	0.7	4.5	0.2	17.8	1.88	19.8	WT & plant running, storm clean discharge = 2MM
Full Capacity level (inch) used in calc.	-20.0	-20.0	-12.0	-12.0	9.75	0.0	17.0				**No Safety factor** included for moats, #4 Pond may need atleast -12" freeboard
Reduction Desired	0.3	1.3	-7.2	-7.1	-21.5	-0.4	-3.2	-37.7	0.00	0.00	**22.2** days at 1.7MM gals consumed, treated, evaporated and NO rainfall for those days
9/15/2007											
9/14/2007											
9/13/2007											
9/12/2007	-0.1	1.7	-2.4	-0.7	0.8	-3.3	0.6	-3.4			
9/11/2007	0.0	-1.3	-1.2	0.7	-1.0	-0.2	0.3	-2.8	0.0	0.1	Transfer water to #1 from #3 & #4 for WT
9/10/2007	0.2	-0.4	-2.4	0.4	0.7	0.6	-0.1	-0.9	0.0	0.0	No rainfall
9/9/2007	-0.3	0.1	0.0	-0.4	1.4	0.4	0.2	1.6	0.3	2.9	Unit down 1/2 day, WT running
9/8/2007	0.2	-0.4	-3.6	-1.4	0.0	0.0	0.5	-4.7	1.0	10.7	High rainfall for 1 day
9/7/2007	-0.1	0.0	-1.2	0.0	-2.9	1.6	-1.5	-4.0	0.8	7.9	Transfer #4 Moat to #3 Moat
9/6/2007	0.1	0.0	3.6	-0.7	1.7	-1.2	0.0	3.4	0.0	0.3	Shutdown 2nd discharge line
9/5/2007			0.0	-0.7	-1.0	-1.2	0.7	-2.2	1.1	11.2	High rainfall for 1 day, shut down 1 line discharge
9/4/2007			0.0	0.0	-0.2	-1.2	0.5	-1.0	0.7	7.1	2 lines Discharge started
9/3/2007			-1.2	-0.7	-0.5	0.0	-0.3	-2.7	0.6	6.6	
9/2/2007			2.4	2.1	3.3	1.6	0.7	10.1	0.0	0.3	Volume changed due to rainfall, moat topped over
9/1/2007			0.0	-1.4	1.4	-0.8	1.1	0.3	2.9	30.8	Heavy rainfall for 1 day

Agrifos Fertilizer Inc.
Process Water Balance - Calculated Volume Changes

Date	Change in Volume (MM gals)							Total	Rainfall	Total	Comments
	#1 North	#1 South	#2 Pond	#5 Pond	#3 Moat	#4 Pond	#4 Moat	vol change	inches	MM gals	
Desired level (inch)	-36.0	-36.0	-24.0	-24.0	-37.0	-12.0	-24.0		*0.16*	1.7	Yearly rainfall average = 60 inches
Area (acres)	0.5	4.5	44.0	26.0	17.5	15.0	4.2			389.0	Total rainfall water collected acreage = 389
8/31/2007			0.0	0.0	0.0	0.4	-0.1	0.3	0.9	9.9	
8/30/2007			0.0	1.4	0.0	0.8	0.1	2.3	0.5	5.1	
8/29/2007			0.0	0.0	0.0	0.0	-0.2	0.2	0.3	3.3	
8/28/2007			0.0	0.0	0.0	0.4	-0.1	0.3	0.0	0.2	
8/27/2007			0.0	0.0	-0.5	-0.8	0.8	-0.5	0.2	2.2	
8/26/2007			1.2	0.0	0.0	0.4	-0.5	1.1	0.0	0.0	
8/25/2007			0.0	0.0	0.0	0.4	-0.5	0.0	0.0	0.4	
8/24/2007			1.2	0.0	0.0	0.0	-0.3	0.9	0.0	0.0	
8/23/2007			-1.2	-1.4	1.0	0.0	0.2	-1.4	0.0	0.0	
8/22/2007			0.0	1.4	0.0	-0.8	0.7	1.3	0.1	1.4	
8/21/2007			1.2	1.4	-2.4	-0.4	0.7	0.5	0.0	0.0	
8/20/2007									0.0	0.0	
8/19/2007									0.0	0.0	
8/18/2007									0.2	1.9	
8/17/2007									0.0	0.3	#3 Moat breached
8/16/2007									7.8	82.2	Heavy rainfall for 1 day, #3 moat overflowed
8/15/2007									0.4	4.6	
Total Rainfall for Month											
Aug-07									11.6	123.0	Heavy rainfall for month
Jul-07									12.7	134.5	Heavy rainfall for month
Jun-07									7.5	79.5	
May-07									13.4	141.4	Heavy rainfall for month
Apr-07									4.8	50.6	
Mar-07									7.4	77.8	
Feb-07									2.0	21.1	
Jan-07									7.4	77.8	

Agrifos Fertilizer Inc

Process Water Balance - Volume Changes & Rainfall Effects



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